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McMahon's GARDEN ANNUAL-1949

McMAHON COMPANY, INC. • RAPID CITY, S. D.

Corner 5th & Rapid Sts.

COMPLETE
HOME
GARDENING
GUIDE



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The
BEST
of the
NEW
Selections



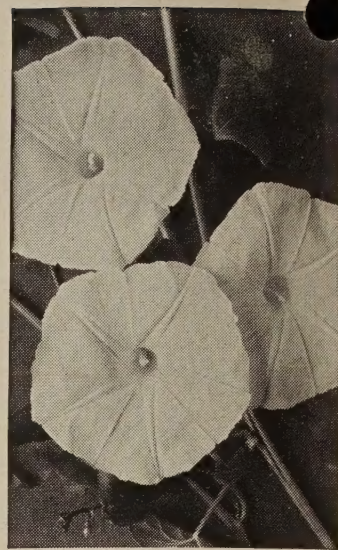
PETUNIA
"Silver Medal"

1949 All America! Medium large. Rich, pure salmon pink in color. Vigorous. Pkt. 50c.



PETUNIA
"Glamour"

Large single flowers have huge ruffled petals of shining salmon-rose pink. Pkt. 25c.



MORNING GLORY
"Pearly Gates"

Clear, shining white with light cream shading at throat. Often 4 1/2" across. Pkt. 50c.

Our offerings of flower seeds, as always, includes the best of the newer introductions as well as the older favorites. Here are a few we recommend heartily.

A COMPLETE GUIDE for the home gardener

This Garden Annual is more than just a seed catalog. In addition, it is a complete guide for the home gardener, containing more real, down-to-earth gardening information than any seed catalog you've ever read.

As you will notice, we have crammed this book with facts. You'll find practical answers to hundreds of questions that every seedsman is asked each year.

Whether you're a beginner or an experienced gardener, we're sure you'll find much that is helpful in these pages. You can begin using the book right now as a guide for your planning. Then, later on, use it as a guide to more effective action all through the season.

We're always here to serve you and help you with your gardening problems. Let's get together often!



PETUNIA
"Double Colossal Rose"

Double, 5-inch flowers in lovely rose shades. 1948 All America. Pkt. \$1.00.



ASTER
"El Monte"

A bright crimson super-giant aster. All-American bronze medal winner. Pkt. 20c.



MARIGOLD
"Redhead"

Dwarf marigold with large single flowers of rich mahogany and gold. Pkt. 25c.



CALENDULA
"Persimmon Beauty"

A giant strain. Large, brilliant orange flowers on 12" to 18" stems. Pkt. 15c.

Copyright, 1949. H. B. Law, Chicago



SCABIOSA
"Imperial Giants"

Large, new type with double flowers in many soft colors. Grow three feet tall. Packet, 15c.



from YOUR Seed Store

We're proud to present this book as our Spring Greeting to neighboring gardeners. We're sure you'll find it extremely valuable.

Before you go into the fascinating pages that follow, we want to point out that this book is not primarily a mail-order catalog. Rather, it is a message from a good neighbor. It comes from a **complete garden supply center**, which has everything right on hand, ready for you to see and inspect. Unlike the usual mail-order catalog, this book is designed to help you . . .

1. As a pre-season garden-planning guide.
2. As a guide to more effective action all through the season.

We have made it our job to serve (both in our store and by means of this book) the gardeners and growers of our own area. We work always with the needs of our neighbors' gardens in mind. We know from experience exactly what these local needs are. And we choose our stocks carefully to suit these needs.

Don't you agree, then, that it is wise to shop here where **YOUR GARDENING NEEDS AND PROBLEMS** are understood? Why take chances on far-away sources for your garden seeds and supplies?

- * WE OFFER A COMPLETE, YEAR-ROUND, LOCAL GARDEN SERVICE.
- * WE OFFER ONLY GOOD, FRESH SEEDS—PACKET OR BULK.
- * WE OFFER A COMPLETE SUPPLY SERVICE.
- * WE OFFER CHEERFUL, EXPERT GARDEN COUNSEL.

PRICES: All prices in this catalog are subject to change without notice.

MAIL ORDERS: On mail orders, all garden and lawn seeds are sent postpaid. On all other items, add parcel post charges to your remittance.

NON-WARRANTY CLAUSE: Success with seeds, bulbs, etc., depends largely on weather conditions and proper cultivation, so in accordance with the universal custom of the seed trade we give no warranty, express or implied, as to the productiveness of any seeds, bulbs or plants we sell and will not be in any way responsible for the crop. Our liability is limited to the purchase price of the seed, bulbs or plants.

NOTE—If any of your gardening friends have not received this catalog, and would like to have a copy, just let us know. But please do so early, as the supply is limited. And, incidentally, if you, yourself, have any comments to make on our book (good or bad) we hope you'll let us have them—in person or by letter. We like a pat on the back—and we appreciate constructive criticism, too.



CALENDULA
"Sunset Shades"

Large double flowers on tall plants. All of the lovely oranges and golds of sunsets. Packet, 15c.

FARM SEEDS

Buying seed is the most important item in the operation of your farm business. The crop, and your profit or loss, are controlled by the seed and the weather. You can't change the weather but you can control the quality of the seed you plant. See us for the best.



ASK FOR OUR LATEST COMPLETE LIST

Including Many Varieties Not Listed Here

ALFALFA—The No. 1 soil builder and restorer. Unequaled for high yielding pastures and soil conservation. Can be used alone or sown with other grasses for mixed hay and pastures. For best results use the varieties that are adapted to your soil and climate. We carry a full range of varieties that are especially suited to this territory.

MILLET—An excellent food for stock and poultry. Makes a fine green fodder and dries into a nutritious hay. Grows quickly and gives early feeding. Rapid growth aids in choking out weed heavy.

RAPE, DWARF ESSEX—Highly recommended for quick pasture for all stock but especially valued for hogs and poultry. Gives green feed in 6 to 8 weeks. May be planted in small grains to make good hog pasture.

SORGHUMS—An excellent soiling crop furnishing succulent feed for milch cows. A large yielding fodder crop. We have an excellent range of varieties for all purposes.

SOYBEANS—The crop of many purposes. Excellent for hay, ensilage, grain and soil improvement. Also in demand for many industrial uses. Soy meal is an excellent supplement for dairy ration. Improve the protein supply for your stock with our selected varieties. May be planted to give a late crop where others have failed.

VETCH—A great producer for hay, pasture, or silage. Excellent for soil building. Needs only moderate moisture, grows in almost any soil. Sow winter variety for soil building and early pasture. Can be mixed with rye or other grains.

good hay crops the second year. Useful on a wide range of soils, and adds vital humus and nitrogen to them. Excellent for pasture.

Mammoth red—Also called "Pea Vine" clover. Grows large and coarse and is used primarily for plowing under as a green manure crop.

White Dutch—A very hardy creeping clover adapted to many soils and climates. Excellent for all types of grazing and readily eaten by all livestock. The creeping habit is fine for holding soils. Works well when mixed with pasture grasses as it enriches the soil and adds to the feeding value of the grass. Also fine for bees.

CLOVERS

Alsike—Very hardy. Does well on damp land that is not suited to other kinds of clovers. Sow with Red Top for high quality damp land pasture or hay. Good for bees and honey production.

Medium Red or June—The most valuable of the clover family. Makes two

White Sweet (Biennial)—Makes a large growth the first year and a much greater one the second. Unequaled for adding large amounts of humus to the soil. Gives fine summer and fall grazing or makes large amount of hay. Grows on most soils and resists drought.

How Much SEED per acre?

	Lbs. per bu.	Lbs. per acre*		Lbs. per bu.	Lbs. per acre*
Alfalfa	60	12-15	Millet, for seed	50	15
Barley	48	120-150	Oats	32	60-80
Brome Grass	14	20	Rape	50	4-5
Buckwheat	52	50-60	Reed Canary Grass	44	30-35
Clover, Alsike	60	4-5	Rye	56	84-112
Clover, Medium Red	60	6-10	Sorghum, fodder	50	8-10
Clover, Mammoth Red	60	6-10	Sorghum, grain types	56	10-15
Clover, Sweet, hulled	60	12-15	Soy Beans	60	25
Corn	56	8-10	Sudan Grass	32	10-15
Cow Peas	60	25	Timothy	45	8-10
Flax	56	25-30	Vetch	60	40-60
Grass, Kentucky Blue	14	20-30	Wheat	60	75-90
Grass, Orchard	14	21-28			
Kaffir Corn	56	10-15			
Millet, for hay	50	30			

*Drilled, for broadcast use 2-4 times as much.

Certified SEED POTATOES

Our certified Stocks are the most economical you can plant, they reduce your hazards, give you bigger production and fewer culls. They are true to name . . . grown especially for seed stock . . . more highly disease resistant . . . tagged for origin.



GRASSES

Alta Fescue—The famous new all-purpose, all-location grass. High yielding for pasture, hay, or silage. Indifferent to soils . . . grows on wet or dry, acid or alkali land. Makes a tough pasture turf that binds the soil and provides a maximum of grazing for more months. Takes about a year to get well established, but lasts a generation or more. Highly valued for permanent pastures.

Brome Grass—Drought defying. Resistant to extreme heat or cold alike. Very early and stays green late in fall. Produces abundant pasturage and enormous crops of high grade hay. Often planted with alfalfa as one adds to the feeding qualities of the other, and the alfalfa supplies the nitrogen used by the brome grass.

Kentucky Blue Grass—Excellent for pasture for all kinds of livestock. Very hardy. Roots form a tough sod that resists trampling and erosion. The sweet dark green leaves are relished by all farm animals. Requires about two years to form a tight sod, so is frequently sown with other grasses.

Orchard Grass—Hardy, quick growing. Gives a large yield of excellent hay. Makes several crops of good hay a season. This grass grows well in shady spots and may be used in orchards, woodlots and shaded areas where many grasses will not grow a full crop. A tall, long-lived clump forming plant.

Reed Canary Grass—Especially suited to swampy, overflowed lands; but will make a good growth on moist uplands. It is a splendid pasture grass as it starts early in the spring and lasts to severe winter weather.

Red Top—A valuable grass for most soils. It is a good permanent grass. It stands wet weather and may be used on lands subjected to occasional floodings. If cut often will remain good during most of the summer. The seed germinates rapidly and takes hold quickly . . . so is often included in pasture mixtures for rapid soil covering and protection of slower starting grasses. Can be grown successfully on "Alkali" lands where many other grasses fail.

Rye Grass, Domestic—An annual grass that is used for quick pastures and for helping Blue Grass and other slow starters get established. The plants are tall, broad-leaved, and deep green. Plants are ready for the first hay crop within a few weeks of planting. Yields an abundance of pasture or hay.

Rye Grass, Perennial—A good pasture grass. Grows quickly and withstands drought reasonably well.

PERMANENT PASTURES

Consider the facts and you too will install permanent pastures. In the first place the initial cost of installing this type of pasture, is low. Once it is established no upkeep is necessary. Your animals are your harvesters because the fields are their feeding troughs. There are no mowing, hauling, stacking costs.

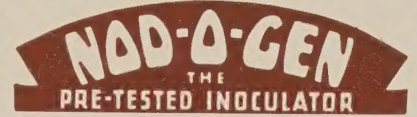
Your stock can roam and enjoy the finest, most nourishing feed possible, in a manner best suited to them.

Your dairy stock will produce more milk that is richer in vitality and health. Beef and pork stock will show you quicker steady gains in weight, in so doing, reduce the cost of the "fattening up" process before marketing time.

Permanent pastures are free of replacement costs, all grasses are either perennial or tend to reseed themselves. We can aid you in selecting the right grasses and legumes for your pastures.

Sudan Grass—The ideal emergency hay and pasture crop for late planting. Grows rapidly . . . may be cut in two months or less after planting. Stands lots of hot dry weather and yields better than most pastures under drought conditions. Do not plant until the ground is thoroughly warm.

Timothy—Unsurpassed as a hay crop. Relished by all kinds of livestock, Especially horses. Not suitable for permanent pastures. Do not cut too early or pasture too late in fall. The very fine seed germinates quickly but takes a little time for the young plants to get established.



Legume seeds must be inoculated for the best results. State and Federal Authorities urge it—for larger and more vigorous growth and for soil enrichment!

Alfalfa & Sweet Clover

1 bu. size	50c
100 lbs.	70c
2½ bu.	\$1.00

Red, Crimson, White Clovers, Alsike

1 bu. size	50c
100 lbs.	70c
2½ bu.	\$1.00

Soybeans, All Varieties

2 bu. size	30c
5 bu.	55c
30 bu.	\$3.00

Cowpeas and Peanuts

2 bu. size	30c
5 bu.	55c
30 bu.	\$3.00

Field & Garden Beans

1 bu. size	35c
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Field & Garden Peas, Vetches

1 bu. size	35c
100 lbs.	55c

Lupine, All Varieties

100 lb. size	55c
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Birdsfoot Trefoil

8 lb. Pkt.	25c
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The right SEED CORN for your farm!

Our selection of seed corn is built on an intimate knowledge of the kinds that do best in this locality. We have the best kinds for your particular soil and climate. More and more, the problem of seed corn is becoming localized as new hybrids are released. It is important to have those hybrids best fitted to your growing conditions.

We have the right hybrids for you! Ask about our selection . . . especially adapted to this region.



LAWN SEEDS

... from a "home" seedsman who knows the lawn needs of this territory!

The only way to thick, lasting turf is to sow a mixture of true turf grasses suited to your soil and climatic conditions, and the only way to get such a mixture is to depend on a seed specialist who knows your territory.

Astoria Bent

Produces numerous root stocks which spread underground and throw up new shoots, making a very thick turf. This Bent has a good color and is excellent for lawns and putting greens. Does not require as much cutting as Creeping Bent.

Seaside Bent

A true creeping Bent. The plant is dwarf, and multiplies rapidly by sending out runners in all directions. With proper watering and care, it makes a strong, enduring turf. If damaged it heals over promptly.

Chewings Fescue

A superb grass to grow in rather shaded areas and even on fairly acid soil and under other unfavorable conditions. Plants grow low, make a dense turf. Often used for putting greens and fairways.

White Dutch Clover

Although not a grass, White Clover is very desirable in lawn mixtures because of its rapid, low growth and creeping stems. Valuable as a green cover for poor ground. Succeeds best on moist ground or during wet season.

Our Finest Lawn Mixture

A combination of the finest quality seeds—a mixture which we have developed after years of experience. All of the grasses in it are fine-bladed and deep rooting. There just isn't a better combination than this for the lawns of this territory.

Our Special Shade Mixture

Our shade lawn mixture is a scientifically developed blend of top quality, shade-enduring grasses and clovers. We've been getting excellent results with it for years and believe it will produce fine results anywhere that grass can be made to grow.

Kentucky Blue Grass

Produces a deep dark green lawn of close thick turf. Maintains its green color until late in fall. Roots are deep, and plants are very hardy.

Domestic Rye Grass

A quick-growing annual, valuable in lawn mixtures as a nurse crop, to keep lawn green while better, slow-growing varieties are becoming established. Succeeds well on almost any soil.

Perennial Rye Grass

A quick growing grass, most suitable for mixtures. Succeeds on almost any soil not water sogged.

Red Top

Particularly suitable for wet, low spots, as it stands wet weather or even overflowing, better than other grasses. Also does well on almost any good, rich soil. Often thrives where Blue Grass fails—and therefore makes an excellent supplement for it.

Other Grasses

Besides the lawn grasses listed here, we can also supply just about any other grasses you may need. We carry a complete line of all varieties that can be successfully grown in this part of the country. Just tell us what you want!

How Much Seed?

Skimpy seeding is costly in the long run. Plant enough to get a thick, heavy mat of grass and you'll need far less re-seeding. The wise minimum for new lawn planting may be figured from this table:

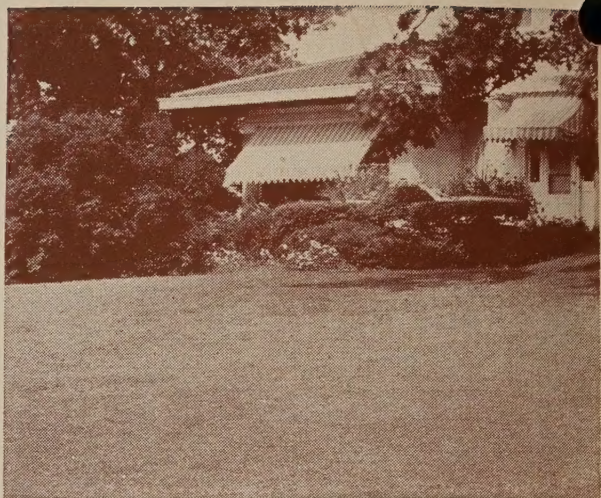
Size of plot	Square feet	Amount of seed
10x20	200	1 lb.
20x50	1,000	5 lbs.
20x100	2,000	10 lbs.
50x100	5,000	25 lbs.
100x100	10,000	50 lbs.

For re-seeding, use at least half the amount.

What Kind of Seed?

Climate, amount of sun or shade, soil conditions, drainage, slope, all must be considered.

That's why we suggest that lawn seed should be bought from the seedsman who can weigh all these factors and help you to the right answer.



FOR SUNNY PLOTS

We offer you a fine mixture of sturdy, hardy grasses that thrive in locations exposed to the blazing sun. Because weed control is more difficult in sunny places, our special mixture contains vigorous grasses that will starve weeds out and help give you the weed-free lawn you desire.



FOR SHADY SPOTS

Wherever shade makes it difficult to obtain a good lawn, our special shade mixture is heartily recommended. We have chosen excellent quality, shade enduring grasses and clovers... and have blended them into a mixture that will give you surprising results.

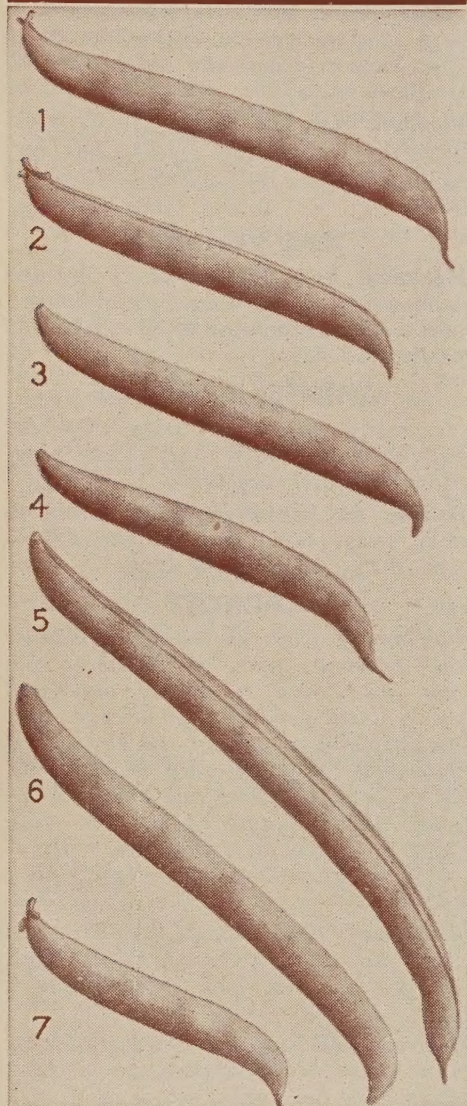


FOR SPECIAL USES

We have just the right grass seed for every purpose. We can give you special deep-rooted grasses for the sloping lawn, the ideal grasses for planting on golf courses, parks, estates, cemeteries... or for any other special use. Just tell us what you want.

VEGETABLE SEEDS

Carefully selected
for your territory!



BEANS

1. Bountiful 2. Stringless Green Pod
3. Tendergreen 4. Giant Stringless Green Pod
5. Kentucky Wonder 6. Kentucky Wonder Wax
7. Golden Wax, Improved.

ASPARAGUS

A hardy perennial; will bear over 20-year period if properly cared for. We recommend purchase of ASPARAGUS ROOTS rather than seeds, as roots produce crop 2 years earlier. If seed is used, sow thinly in drills in early Spring. Cover to ½" depth. Thin plants to 6 inches apart and when a year old transplant to heavily enriched beds. 1 oz. sows 60' of drill.

Mary Washington (fr)—Thick tall green spears with purple tops. Highly rust resistant. Rapid growing. Tender.

BEANS

Green Podded, Dwarf or Bush

Sow in rows 2½' to 3½' apart. Plant seed 1½" to 2" deep and 3 to 4" apart. Do not plant until danger of frost is past. Press soil around seeds. Thin young plants to about 6" apart. Keep cultivated until plants blossom. (DO NOT CULTIVATE when blossoms are at prime or when plants are wet with dew. Keep vines picked to insure a longer bearing period.) Plant every two weeks.

Black Valentine Stringless (fr)—Hardy, early maturing, very productive. Pods dark green, 6-6½ in. long, brittle, smooth, stringless. Seeds black. 49 days.

Bountiful (fr)—An early, heavy-yielding variety. The leading flat podded bean for market and home use. Flat, light-green, stringless, but slightly fibrous pods of finest quality. 47 days.

Stringless Green Pod (fr)—Large, sturdy plants. Meaty round pods, brittle and strictly stringless. Medium green pods, oval, yellowish-brown seed. 54 days.

Giant Stringless Green Pod—5¾" pods almost round. Meaty, stringless and brittle. Medium Green. 53 days.

Plentiful—Productive, early. Flat, medium green pods, 6 to 7-in. long, strictly stringless. Choicest quality. All-America Bronze Medal 1939. 51 days.

Tendergreen (fr)—Large, erect plants. Abundant, round, dark-green pods, strictly stringless and fleshy. 54 days.

Wax Podded, Dwarf or Bush

Improved Golden Wax (fr)—Small erect plants, moderately productive. Straight, thick, flat pods, creamy yellow and stringless. 51 days.

Pencil Pod Black Wax (fr)—Stocky, large, strongly productive plants. Pods, golden yellow, tender, stringless. 55 days.

Vegetables for Freezing

The symbols (fr) following the variety names indicates vegetables suitable for home freezing.

Sure Crop Stringless—Handsome, rich yellow pods. Sturdy, brittle. 6-6½ in. long. Strictly stringless. 53 days.

Beans, Pole

In warm ground, set poles 4' to 8' long, slanting a bit to the north in rows 4' apart. (Extending north and south the poles will be 3' apart in the row.) Plant 5 to 8 beans about 1" deep around each pole. When growth is sufficient thin to four plants.

Caution: To avoid spreading plant diseases, do not cultivate or pick when plants are wet.

London Horticultural or Cranberry—Hardy, good climber. 5" pods flat-oval, dark green when young, splashed with red. Slightly curved, stringless, little fiber and very fleshy. 70 days.

Kentucky Wonder (fr)—Strong climber long-bearing.

Kentucky Wonder Wax (fr)—Vigorous, good climbing plants, waxy-yellow pods, flat and nearly stringless. 68 days.

Lima, Dwarf or Bush

Plant in dry, warm ground. Make rows 2' apart and drop beans 6" apart in row. Cover with 1" of soil. Can also be planted in hills, 3' apart one way and 2' apart the other way. Use 4 to 6 beans per hill.

Burpee's Improved Bush (fr)—Best of flat seeded bush limas. Pods contain four or five large beans of excellent quality. 75 days.

Fordhook Bush (fr)—Straight pods with plump, large beans, excellent quality.

Henderson's Bush—Know as Baby Lima or Butter Bean. Plant small, early and bushy. Very productive. 65 days.

Continued on Page 8

Beans

15¢ PER PACKET

ALL OTHER VEGETABLE SEEDS 10¢ EXCEPT WHERE OTHERWISE NOTED

OLD GARDENER SAYS

One excuse for growing your own vegetables (beside the fact that they cost you less) is that you can never buy them as good as you can pick them from your own garden.

Don't be conservative when it comes to using your own produce. It costs you so little and you get so much that it will pay you to try some interesting combinations. A special favorite with many is a mixture of half Swiss Chard and half New Zealand

Spinach. Somehow this tones down the "earthy" taste that some object to in chard.

And have you tried lettuce cooked with young peas? A wonderful combination. Young green onion tops with peas is another. Speaking of green onions, try cooking them in bunches like asparagus and serving with Hollandaise sauce. A real treat for epicures!

And, if you have a freezer, try freezing clean washed mint for winter use in fresh mint sauce. Remove flower buds and course stems before freezing.



It's just plain horse sense to buy garden seed from the seedsman—and nowhere else!

All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED

In bulk at money-saving prices.
 Special quotations to market gardeners.
 Prices subject to change without notice.

BEANS, Continued
Lima, Pole

Follow same plan as for other pole beans but plant seed two weeks later.

King of the Garden (fr)—Flat, smooth pods with four or five white, large flat beans. 88 days.

BEANS, SHELL

Navy—Small seed, almost round and white. Hardy, prolific. Most popular for baking. 95 days.

Red Kidney—Pods 6-7 in. long. Flat large beans, pinkish red to mahogany in color. Rich flavor. 95 days.

BEETS

Deep, rich sandy loam produces finest beets. As soon as ground can be worked sow in drills 18" apart and press soil firmly over seed. When tops are 3" to 6" tall pull them and use for cooked greens. Continue this until roots stand 6" apart. Plant every 10 days or so.

Crosby's Egyptian (fr)—Widely grown for early beets. Flattened globe shaped roots with small tap root. Excellent quality, tender and sweet. 60 days.

Detroit Dark Red (fr)—Standard of excellence in table beets. Smooth, globular roots of deep ox-blood red—sweet and tender. 68 days.

Early Wonder—Early variety. Semi-globular, tender, blood-red. 58 days.

BEETS, STOCK
(Mangel Wurzel)

Sow seeds in early fall and spring in rows 2½' to 3' apart. Later thin to 10" apart.

Mammoth Long Red—Very popular, 30 to 50 tons per acre. Roots grow half above the ground. Light red, flesh white with rose tinge. 110 days.

SWISS CHARD

Requires about same treatment as beets. Cultivate frequently. Leaves

may be gathered during summer and fall. New ones will grow quickly.

Lucullus—Most popular chard. Upright in growth with yellowish-green curled, crumpled leaves. Thick, broad and light green stems. 50 to 60 days.

Rhubarb Chard—Heavily crumpled leaves, dark green with a translucent crimson stalk. Easily grown, everywhere. A different, tasty, delicious flavor—cook stalks and leaves together for a new taste thrill. 60 days.

BROCCOLI

Plant and cultivate like cabbage and cauliflower.

Italian Green Sprouting (fr)—Plant bears a succession of sprouting heads about 5 in. long, which, if kept cut will be replaced by others for 8 to 10 weeks. 55 to 65 days.

BRUSSELS SPROUTS

Easy to grow wherever conditions are favorable for late cabbage, and requires same culture. As sprouts begin to form remove lower leaves so that all nourishment sent to lower stem will be forced into the sprouts.

Long Island Improved—Compact, uniform dwarf size plants. Cabbage-like sprouts 1¼-1½ in. in diameter. One of the most dependable varieties. 90 days.

CABBAGE

Sow seeds in drills 6" apart across the bed, dropping the seed 5 to 6 to the inch. Firm soil after covering, then water thoroughly. Keep beds moist but not soaking wet. Seeds germinate 3 to 8 days depending on temperature. Transplant to open ground when plants have made fourth pair of leaves. Set out as soon as frost danger is past. Use plenty of good commercial fertilizer. Cultivate frequently, every 5 or 6 days until cabbages are large. For winter storage, stand plants upright in cold cellar, with roots in sand. Slight freezing will not harm cabbage.

Yellows Resistant Varieties

Yellows Resistant Marion Market—Large, firm round heads, used for early kraut. A development from Copenhagen Market, 7-in., 4-lb. heads. 75 to 80 days.

Yellows Resistant Wisconsin Hollander—Late, excellent for winter storage and kraut. Similar to Hollander and Danish Ball Head, 7 to 8-in., 7 to 9-lb. heads. 100 to 110 days.

Standard Early Varieties

Copenhagen Market—Excellent, early short season type. Short stems, 6½-in., 3½ to 4-lb. heads. 65 to 70 days.

Early Jersey Wakefield—Pointed heads, small and firm. Earliest pointed variety. Plants compact. 62 days.

Goldren Acre—Extra early variety producing uniform well-balanced head. Weighs about 3-lbs. Excellent quality. 65 days.

Late or Winter Varieties

Danish Ball Head or Hollander—A widely used late type. Deep, round, hard compact heads, 7 to 8-in., 6 to 7-lb. Tender, crisp, fine for kraut. 100 to 105 days.

Premium Late Flat Dutch—Heavy yield variety. Very large heads, flat and solid. Leaves light gray-green. 100 days.

Red Varieties

Mammoth Red Rock—Best of the red cabbages. Hard, round, purplish-red heads. Good keeper, 6 to 8-in., 7 to 8-lb. heads. 100 days.

CHINESE CABBAGE

An easily raised succession crop. Set out in rows which have been occupied by earlier vegetables.

Chihili or Improved Pekin—Dependable, early. Solid, tapered heads, 3 to 4-in. thick. 18 to 20-in. long. 75 days.

CARROTS

Use sandy loam enriched by manure the previous year, if possible; but any good land if deeply and well worked will produce a good crop. Sow seed as early as ground can be worked. Sow seed ½" to 1" deep in drills 16" to 18" apart. Press soil firmly above seed. When plants appear use cultivator or wheel hoe and thin from 2" to 6" apart, according to type. Keep cultivated.

Chantenay, Red Cored (fr)—Root has thick shoulder and tapers to slight stump root, 5-in. long. Red cored. 70 days.

Danvers Half Long—Sweet, tender roots, 6 to 7-in. long tapering to a blunt point. Fine for storing. 75 days.

Improved Imperator (fr)—Fine-grained, tender. Rich orange, indistinct core. Roots smooth, tapered to semi-blunt. 77 days.

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OLD GARDENER SAYS

Even though most folks have trouble growing it, Chinese Cabbage is a crop worth considering. It's a triple-treat vegetable. Eat it fresh as a salad, cook it as greens or use it raw as a relish. And it's one salad crop you can store for winter use, to take the place of perishable lettuce.

The trick in growing it is timing. Don't seed it before July 1st. If you plant it too early, there is some mechanism inside the plant that forces it to produce flowers and go to seed instead of heading up. But if

you wait until after July 1st, it will form a firm, tight head instead.

Another difficulty is that plant lice or aphids love this plant, as do certain chewing insects. Getting at these pests in the folded leaves is a hard problem. The trick is to go down the row with a light dust of rotenone (which, by the way, kills both sucking and chewing insects) . . . not enough to kill but just enough to force the pests out on top for air. Then go down the row again five minutes later with a heavy dust or spray and you'll get 99% of them.



World's greatest bargain is good garden seed! Where else so much for so little?

PRACTICAL ANSWERS TO EVERY-DAY QUESTIONS

This is a Garden Annual that you can keep right on using long after you have bought and planted your seed!

It's packed with practical, down-to-earth facts that every gardener needs to know. Even old-timers will find information that is mighty helpful.

You'll find all of this valuable information listed under the "How? When? Where? Why?" headings all through the HOME GARDENING GUIDE. Read it carefully, keep it handy and use it to advantage all through the year.

Planning before planting

Don't expect your garden to grow itself. Plan the crops you want and the amount of each. List them and study the planting and maturity time. Determine the amount of space you will need for the early crops that need cool weather and the time that space may again be used for hot summer crops.

Check your soil. Do you need fertilizer, humus, inoculants, seed disinfectants? Are your tools in good condition? Check back over your experiences of last year. Was there something lacking in the kinds of crops, supplies or tools? Plan now to avoid repeating any of these old mistakes and place your order for needed items early.

If you still have questions unanswered after reading this book, come in and let's talk them over. Take advantage of our wealth of experience . . . It's yours for the asking.

How Much to Plant

Figure exactly the number of feet of row to plant. Consult the chart on page 18.

Study the chart on page 18. This will tell you how far apart rows should be, how long each crop takes to mature, and how much space you will need to provide the vegetables your family likes. After you have taken into consideration the crops you want to grow, make a rough sketch showing the location of each crop, with catch crops, intercrops, succession crops.

Decide how many times during the harvest season you want to eat a certain crop, how much of that crop you ordinarily serve to your family, and plant accordingly. Thus, if you like beans, and if you want to serve them twice a week, 1 pound at a serving, note that a 50 foot row will produce about 20 pounds. Since beans produce freely for about three weeks, a 20 foot row should give you all the snap beans your family cares to eat during that time. Why tend 50 feet of row when 20 will do?

Succession Seeding

DON'T work more land than you need to. Conserve your energy by intercrop-

ping, catch cropping and succession cropping. In intercropping, short season crops are grown between slower growing plants (i.e., plant early lettuce between rows of tomato plants that won't need the space until after the lettuce is eaten). In catch cropping, plant an early crop **before** the main crop is planted. In succession cropping the main crop comes first (i.e., snap beans to be followed by late turnips). In this way you make better use of space, cut down the number of rows to tend, and make better use of water and fertilizers.

In the smaller garden, concentrate on vegetables that lose quality most rapidly when shipped any distance—delicately flavored green beans, summer squash, early cabbage and leaf lettuce. Unless you have plenty of room, better leave late cabbage, dry onions, winter squash and potatoes to commercial gardeners.

Before You Dig

Before digging or plowing the garden, apply 2½ to 3 lbs. of balanced fertilizer over every 100 sq. ft. of garden. Divide fertilizer into two lots, sowing one with the wind and the other across the wind. Or, better yet, use a fertilizer spreader.

Next, make a mud pie test. Pick up a handful of soil and pat it lightly into a mud pie or cake. If this can be crumbled into loose soil easily, the soil is all right to dig. If it hangs together, it is too wet: don't dig.

CANTALOUPE, Rocky Ford

CORN, Golden Cross Bantam

Hearts of Gold

CARROTS, Imperator

CUCUMBER, Long Green

LETTUCE, Oak Leaf

COS LETTUCE, White Paris 9



Corn

15¢ PER PACKET

ALL OTHER VEGETABLE SEEDS 10¢ EXCEPT WHERE OTHERWISE NOTED



CARROTS

1. Chantenay Red Cored 2. Danvers Half Long 3. Improved Imperator 4. Nantes Improved Coreless 5. Oxheart.

CARROTS, Continued

Nantes Improved Coreless (fr)—Excellent for forcing. Tops small, roots bright orange, blunt ended. Flesh reddish orange and practically coreless. 70 days.

Oxheart or Guerande—Excellent for shallow soil, easy to harvest. Chunky tender and sweet. Bright orange. Keeps well, 72 to 75 days.

CAULIFLOWER

Packet 25c

Needs rich soil and abundant watering. Cultivate same as cabbage but protect heads from sunlight to insure the prized white curd. This is done by gathering leaves together loosely as soon as heads begin forming, and tying them at the top.

Early Snowball (fr)—Best and most widely used early variety. Medium, firm compact heads of fine flavor. 6-7 inches in diameter. 55 days.

CELERIAC

Large Smooth Prague—(Turnip rooted celery). Smooth spherical roots. 2 to 3-in. thick. 120 days.

CELERY

Sow late spring for fall maturity. Have shaded beds and cover seed 1/4". Transplant when 6" high. Keep soil well fertilized and moist. Crop matures in cool weather of autumn.

Giant Pascal—Late variety for winter use. Large plant, dark green leaves. Big solid stalks that blanch to yellow white. 135 days.

Golden Self Blanching, Dwarf—Compact plants, yellowish green foliage. Broad solid stalks, nutty flavor. Blanches readily. 120 days.

Wonderful or Golden Plume—Early, medium plant with compact, full heart. Blanches easily to golden yellow. 112 to 115 days.

COLLARD

Sow seed heavily and transplant when 4" high; or sow in rows in permanent beds and thin to 16" to 18" apart when plants are well started.

Southern or Georgia — An excellent cooked green. Long stemmed plant, with clustered leaves. Withstands heat and bad soil. 24 to 36 days.

SWEET CORN

Do not plant until all danger of frost is past. Be sure soil is well worked and dry—then drop 6 kernels of corn in a shallow hole made with the corner of the hoe. Cover each "hill" with about 1" of fine soil pressed down firmly. When 6" high, thin to three or four plants in each hill.

Hybrids

We offer Hybrid Sweet Corn varieties known as best for your garden—the finest that can be procured anywhere. We list here only a few of these choice kinds. Whatever your needs or your preference, be sure we can supply you with the kind of corn you want. Talk it over with us.

Golden Cross Bantam (fr)—Extremely uniform. Ears 10 to 14 rows, slightly lighter yellow than Golden Bantam. Highly resistant to Stewart's disease. 85 days.

Joana (fr)—1940 All-America. Ears 7 1/2 to 8-in., well filled with 12 or 14 rows of deep medium narrow, light yellow kernels. Highly resistant to drought and bacteria wilt. 87 days.

Marcross (fr)—An early wilt-resistant yellow hybrid, producing deep golden yellow kernels 7 days earlier than Golden Bantam. Ears 6 to 7-in. long, with 12-14 rows of large sweet kernels. 73 days.

Stowell's Hybrid Evergreen — White. Large ears about 8-in. long; big kernels, very sweet. One of the best late varieties. 95 days.

Open-Pollinated

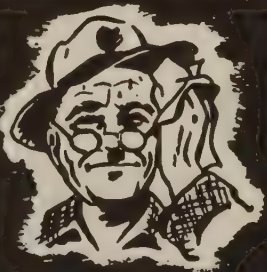
Bantam Evergreen—A cross of Golden Bantam on Stowell's Evergreen. 14 to 18 rows. Deep, rich golden kernels, tender, sweet. 90 days.

Black Mexican—Pure white corn with purplish-black seed. Ears are 7 to 8 in. long, 8 rows. Cylindrical straight rowed. 88 days.

Country Gentleman or Shoe Peg (fr)—Prolific late variety. Favored by canners. Irregular kernels, very deep, sweet. 93 days.

Golden Bantam (fr)—The best and most favorably known of all the yellow varieties. Stalks often have 2 ears. Ears 8 rowed, kernels broad, with tender hull.

Continued on Page 12



Want more sweet corn for more weeks? We can give you the combination that turns the trick.

OLD GARDENER SAYS

The harvesting of vegetables begins with planting. Try to time your planting so that the main part of the crop will just begin to mature about the time they are to be eaten or stored. This means carefull planning so you won't have a long row of bean plants, for instance, that is past its prime, with tough woody pods hardly fit to eat. A short row planted every few days will mean fewer plants to weed and cultivate and better eating on the table.

For winter storage, time your plantings so the crop will be at its best, fully mature but not tough. For canning or freezing, the crop ought to be just a little younger than this.

And speaking of storing vegetables, try to handle them like eggs in harvesting. Don't throw squash, potatoes, beets and carrots into the baskets or other containers. Lay them in instead. It will pay in better keeping and better flavor.

Poor Soil

DON'T plant in water-logged or poorly-drained soil. If your garden doesn't drain readily, find another plot or provide tile drainage. No soil will grow good root crops that dries out hard and compact. If the cost of conditioning such soil is too high, as in plots to be used only one year, omit carrots, beets, etc., and concentrate on leafy vegetables and those that produce above ground, such as tomatoes, peppers, etc. You can re-make such soil by adding well-rotted organic matter. This may be old manure, spent mushroom manure, peat moss, rotted compost, etc. If ashes have weathered for at least a year, they will help break up clay also. So will an application of lime or gypsum. Light sands can also be improved by adding liberal amounts of organic matter.

Extra Feeding

DON'T DEPEND on organic matter only for **feeding** your vegetables. While it has some fertility value, it won't provide enough. Remember that vegetables growing in a garden are in an artificial environment. You don't want **natural** growth; you want crops to mature as soon as possible, and this means **extra** feeding with suitable fertilizers. Properly used, chemical fertilizers furnish plant food at lowest cost in most readily available form. Make provisions for extra feedings through the summer.

Correcting Acid or Alkaline Soils

Acid soil conditions may be corrected by

the use of lime, preferably as ground limestone, which has a longer effect. However, do not apply lime unless it is really needed. A good check on the need for lime is the way your beets grow. Usually a soil that will grow good beets contains enough lime. If you have trouble with beets, and clovers do not grow well in your vicinity, it will pay you to have your soil tested. (We have soil test kits that will show you the right amount of lime to apply.)

Alkaline soil conditions may cause bleaching and stunting of plants. This can be remedied by using soil sulphur or gypsum. Here, again, caution should be used to find out, by soil tests, the right amount to use for your particular soil and crops.

Most garden plants do best in a soil that is neither strongly alkaline or acid but nearly neutral. A soil test of pH 6.0 to 7.0 is ideal, for most crops.

Spading the Garden

The average home garden can be dug easily in five or six days, if done in stages. Usually a hand-dug garden is in better condition than one that has been plowed. Start by digging a trench the depth and width of a spade. Wheel the dirt from this trench around to the other side of the garden, where you plan to finish digging. Throw the dirt from succeeding rows into the trench made by the the previous spade cut. The last cut is then filled with the earth wheeled from the first.

Spading vs. Plowing

Many a garden plot has been ruined by a heavy tractor that worked it too wet.

Be sure your soil passes the mud pie test before you allow a plowman to touch it. Too often, regular farm equipment is too heavy for working garden soils. DON'T work your soil too much. Remember that after you finish digging or plowing your soil has been fluffed up and loosened, so plant roots can grow through it easily. Every time you go over it you are packing it down, making it less suitable for growing plants. Most inexperienced gardeners overdo surface preparation by trying to work the surface into a fine dust. Clods should be broken up, stones raked off and trash removed, in sensible limits. If the soil was dug at the right mud pie point, most lumps should break up without too much additional cultivation.

Use a cord or garden line stretched across the garden in laying out rows. Crooked rows increase the work needed. Also, they waste space. Open furrows for sowing seed by running the end of a hoe handle along a taut cord. For most seeds this should not be more than 1/2" deep; 1" deep for peas, beans, corn, etc. Fine seeds should not be covered more than 1/4" in the furrow. If your soil cakes or crusts badly, use clean sand, or a mixture of 50-50 sand and leaf mold, or peat moss, to cover the seed. This loose mixture does not cake and allows the tender seedlings to break through readily. Where it is important to catch light rainfall, corn, peas, beans, etc. can be sown at the bottom of a 3" to 4" furrow, but should not be covered with more than 1" of soil.



BROCCOLI, Italian Green Sprouting



PEPPER, Pimento



CUCUMBER, Straight Eight



SQUASH, Table Queen



KOHLRABI, Early White Vienna



BEANS, Burpee's Stringless Green Pod

BEANS LIMA, Burpee's Improved Bush

All Vegetable Seeds
10¢ PER PACKET
 UNLESS OTHERWISE NOTED

In bulk at money-saving prices.
 Special quotations to market gardeners.
 Prices subject to change without notice.



HERBS

1. Chives 2. Dill 3. Fennel, Sweet 4. Sage 5. Sweet Basil 6. Thyme.

SWEET CORN, Continued

Stowell's Evergreen—White. Large ears about 8-in. long; big kernels, very sweet. Good late variety. 93 days.

POP CORN

South American or Yellow Dynamite—Rich, creamy, yellow, smooth and round kernels, which pop double size of others. Ears 8 to 9-in. long. Vigorous grower. 115 days.

New! Hybrid Pop Corn

You will be delighted with the new hybrid pop corn. Yields are terrific; every plant produces corn with satisfying of big ears, with uniform popping ability. ASK US ABOUT THESE NEW HYBRIDS!

CUCUMBER

Select soil fully exposed to sun and enrich thoroughly with fertilizer. Seeds should be planted not over 1" deep in hills from 3' to 5' apart each way. Sow 15 to 20 seeds to a hill. When plants crowd thin to 3 plants per hill. Frequent shallow cultivation necessary until runners appear.

A and C—A long dark green cucumber which merits a trial. Uniform nearly cylindrical, well rounded at ends.

Cubit—Won Bronze Medal Award in 1944 All-American Selections. Dark green, white spine, cylindrical with blunt ends. Firm flesh and uniform coloring. New and worthwhile.

Davis Perfect—Midseason. 9" to 10" long. Tapered ends. Good color. 68 days.

Early Fortune—Rich, dark green fruits with firm, crisp, pure white flesh. Grows to 9 by 2½-in. Ships well, and is highly resistant to disease. 66 days.

Long Green Improved—Black spined, good pickling. Grows 10 to 15 in. long. 70 days.

Marketer—Fine new variety, very prolific. Attractive rich, dark green color, carried right down to blossom end. Crisp, icy-white flesh. 7¾-in. long. 2¾-in. diameter.

National Pickling—Rich dark green. Straight and rather blunt at ends but not chunky. Best all-around pickler. 55 days.

Straight Eight—Unsurpassed as slicing cucumber. All-America Selection. 2½-lb. fruits, rounded at ends, medium green. 68 days.

EGGPLANT

Requires continuous warm weather for best results. Seed should be started in a hotbed, as it is slow to germinate. Set plants in open ground when 2" tall and protect from hot sun when young. Be sure to keep young plants developing rapidly. Cultivate freely. To produce large fruits, remove lateral branches so as to reduce number of fruits per plant. Spray to protect from potato bugs.

Black Beauty (fr)—Large, egg-shaped, smooth, very dark purple fruits. Keep well. Plant bears 4 to 5 fruits. Early.

New Hampshire Hybrid—Developed for short season areas. Round to olive shape fruits, growing low on the bush.

ENDIVE

Sow at intervals for continuous supply. When well started, transplant or thin to 1' apart. To blanch, tie outer leaves together over the center when plant is nearly grown. Just before killing frosts in fall, dig the plants, taking plenty of soil with roots—pack closely together and store in dark cellar for winter use.

Full Heart or Escarole—A strongly bunched mass of thick, slightly crumpled leaves, well blanched heart. Upright growing plant about 12 inches in diameter. 71 days.

Green Curled Ruffec—Plants 16 to 18-in. in diameter. Fine fall variety. White tender, fleshy. 95 days.

HERBS

Every garden has a place for herbs. In the vegetable garden or even in the flower garden for their ornamental appearance.

- Anise**—Garnish or seasoning.
- Basil, Sweet**—Flavor for soups.
- Borage**—Salad or to flavor drinks.
- Caraway**—Seeds and leaves for flavor.
- Coriander**—Flavor for candy.
- Chives**—Flavor for soups, stews.
- Dill**—Flavor for pickles.
- Fennel, Sweet**—Garnish or salad.
- Marjoram, Sweet**—Seasoning.
- Rosemary**—Aroma and seasoning.
- Sage**—Seasoning, fresh or dried.
- Thyme**—Aromatic seasoning.

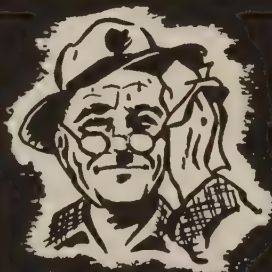
The symbol (fr) following the variety names indicates vegetables best suited for home freezing.

OLD GARDENER SAYS

Head lettuce is fine if you like it, but did you ever notice that all the fancy chefs in the big name restaurants use leaf lettuce? They pay big money for it, too, in comparison with head lettuce because it is such a perishable commodity. By growing your own, you can enjoy this luxury for practically nothing. And even the fancy chefs usually have to take some commercial variety rather than some superbly flavored home garden variety.

By the way, don't pull leaf lettuce plants up by the roots. Cut off the bunch of

leaves, with a stump about 1½" long left in the ground. This stump will throw new leaves and produce a second crop far quicker than you could grow it from seed. Lettuce is best when it grows quickly. This means using plenty of water and a light feeding with nitrate of soda, ammonium sulfate or some good general mixed fertilizer scattered between the rows about the time the third pair of leaves unfolds. By watering in this side dressing of fertilizer you get it to work quickly, and furnish the necessary water to get it moving into plant tissues.



If you're not sure about your planting, just ask us. Many a good garden plan starts in our store.

KOHLRABI

Sow early as possible in light, rich soil. When plants are in the third leaf, thin to 6" apart. Plant at intervals of 10 days for succession of bulbs until hot weather—after which they do not grow. Use while still young and tender, before skin hardens.

White Vienna Early (fr)—8 to 10-in. leaves on slender stems. Bulbs 2 to 3-in., globular, light green. Crisp, tender, clear white flesh. 55 to 60 days.

LEEK

Large American Flag—Early, thick, long white stems. Leaves large and drooping, medium green. 130 days.

LETTUCE

Keep lettuce growing rapidly for best results. A light, rich soil needed for this. Earliest varieties must be started from seed in cold-frame. As soon as open ground can be worked, transplant. For later use, sow seed in open ground as soon as weather is favorable. Thin plants in rows 4" to 8" depending on variety.

Heading or Cabbage

Bibb—Early, small headed lettuce of excellent quality and flavor. Perfect for home gardens. Very smooth, dark green leaves, bleaching to a rich yellow.

Big Boston or Mammoth Boston—Popular for cold frame forcing and outside culture. Medium compact heads with creamy, yellow heart. Smooth, glossy leaves, edges wavy, and slightly tinged with reddish brown. 75 days.

Great Lakes—All-America award. An outstanding new Iceberg or Crisp-head type. A summer lettuce that stands heat well and is very resistant to tip burn. Heads medium size, solid, crisp.

Iceberg—Late, large variety. Compact heads, crumpled, crisp and sweet. Leaves light green, slightly brown on edges. 85 days.

Imperial No. 847 (Florida Iceberg)—Heads are of good size and solid. Does well in hot weather and is resistant to tip burn. Very hardy. 83 days.

New York No. 12—The standard crisp-head lettuce. Large globular shaped head, dark green with blanching, silvery white heart. Successfully grown outdoors spring summer and fall. 85 days.

White Paris Cos or Trianon—Medium large self-folding, dark green leaf shaped heads. Greenish-white, well blanching interior. 66 days.

Loose Leaf Varieties

Black Seeded Simpson—Light green, frilled and crumpled. 45 days.

Grand Rapids—Erect, compact plants. Light green, broad heavily fringed. For forcing or early planting. 43 days.

Oak Leaf—The most popular leaf lettuce for home gardens. Rick, dark green leaves, tender and delicious. Outstanding resistance to hot weather.

Prizehead—Early non-heading sort. Medium sized plants, crisp and tender. Color light brown on a medium green base. Leaves frilled at edges, and crumpled. 47 days.

MANGEL WURZEL

(See Beets, Stock)

MELONS

Muskmelon and Cantaloupe

Requires long season to develop and is easily injured by frost, or even by cool weather. Before planting, spade in liberal forkful of well rotted manure in each hill. Thin plants to 4 per hill after third leaf develops, and train vines in different directions. Cultivate as long as possible. On moist ground use shingles to hold melons off ground to prevent rotting.

Bender's Surprise—Similar to Tip Top. Coarse netted 7-lb., oblong fruit, distinctly ribbed hard greenish-yellow skin. Flesh bright salmon. 95 days.

Continued on Page 16



LETTUCE

1. Great Lakes 2. Oak Leaf 3. Imperial No. 847 4. White Paris Cos

KALE OR BORECOLE

Requires moist, well enriched soil. Pick leaves as wanted, or pull whole plant. Leaves are best after a frost.

Dwarf Blue Curled Scotch—Wide spreading, fine curled blue-green plant plume-like leaves. Use as a vegetable and for ornament. Exceptionally uniform. 55 days.

How? When?

HOME GARDENING GUIDE

Where? Why?

Transplanting

DON'T assume that transplanting is worth doing for itself alone. Transplanting is like an operation to a human being; the plant must recover from post-operative shock before it can take hold and start growing again. The only value in transplanting is that it allows you to use larger plants—important in short seasons. If there is ever any question as to whether to direct-seed or to transplant, always direct-seed unless quicker maturity is a factor. Even tomatoes, the crop most often transplanted, will usually produce as quickly from seed sown in the open as they will from transplants, which must grow new roots before they can begin growing again.

Use good seedlings if you must transplant. They should be medium green in color, not too tall, and the leaves should be free from spots or dead areas. Avoid seedlings that are reddened or purplish in color, or show signs of yellowing (except in the case of celery plants, which can be quite yellow and still be good).

If you want to grow your own transplants to get healthy stock, follow these directions:

DON'T BEGIN too soon, unless you have a greenhouse or light hotbed and can give the seedlings plenty of room. For most vegetables, 6 to 7 weeks is time enough to allow between seeding and transplanting. Most homes are too dark, so don't try to grow seedlings unless you can do it in a sunny window that gets direct sunshine for at least six hours.

Fill shallow boxes (flats) with a mixture of 1/3 good garden soil, 1/3 clean sand and 1/3 compost, leaf mould or other well-rooted organic matter. Make very shallow rows or furrows with the edge of a ruler or a wood lath, 3" apart. Sow seeds in these rows 1" apart in the row.

DON'T let your soil dry out, and don't let it be soggy. Spray lightly two or three times a day, using an atomizer or bulb sprinker. When the best seedlings can be selected, thin out to stand 2" to 3" apart. Before transplanting into the garden, withhold water for 2 or 3 days. In transplanting, set the plants firmly by pressing on both sides of the stem with forefinger and thumb. If not firmed thoroughly, seedling may be killed by being hung with an air space underneath.

Always try to save as many leaves and roots as possible. Scientific tests show

that it is better to allow the transplant to wilt slightly than to remove leaves to prevent that wilting. Removing leaves slows up manufacture of plant food that will help plant recover. Liberal watering should prevent wilting.

After Transplanting

As soon as the garden has been planted, water thoroughly but gently with a fine spray. This, by the way, is the only time we sprinkle a garden; once the plants are established, any watering should give the soil a good soaking. If a crust forms after watering, break this by working with a hoe or cultivator on both sides of the row.

In the case of slow-germinating seeds like carrots and parsnips, mixing a few radish seeds in the packet will mark the row early. Otherwise you may have to delay cultivation until too late to do a good job of weed control.

DON'T take it for granted that cultivation will substitute for watering. Tests prove that pulverized soil loses just as much water after working as before. The real reason for cultivating is to destroy weeds. Weeds shade desirable plants, rob them of moisture and use up soil plant food.

Vegetable Seed Culture

There's no end to the science of vegetable gardening—nor to the books that have been written about this fascinating subject. But if you haven't the time to read all the books, then try the brief paragraphs that follow. Here are the fundamental facts—the things every vegetable gardener should know—**AND DO!**

ASPARAGUS

Soak seed 24 hrs. before planting. Sow in loose, rich, moist soil after weather warms up. Thin to stand 6" apart. In early spring, set in permanent position, 24" apart, in rows 20" apart. Set in hole so that crown is 8" below surface, but only cover tips with 3" of soil. As plants grow, fill in until level. Don't cut first year after setting.

SNAP BEANS

Don't plant until the weather is warm and settled.

Sow beans in bottom of 3" to 4" furrow, 24" between rows, but do not fill in with more than 1½" of soil over seeds. Thin to stand 4" to 6" apart in row. Bean seedlings are likely to be slowed up pushing through heavy soil. In such soils, cover seeds with mixture of half sand and half soil, or sand and peat or any other loose, light material that will allow seedlings to break through easily.

Make successive sowings every 2-3 weeks. Don't cultivate beans when wet; this may spread disease.

BUSH LIMA BEANS

Plant two weeks later than bush snap beans, when soil is warm. Space rows 24" apart; otherwise follow instructions for snap beans.

POLE BEANS and POLE LIMAS

Both these should be planted two weeks after bush beans. Rough poles set 3 feet apart should be used. Anchor well, as heavy beanvines blow over easily. Sometimes three poles set to form a tepee are used and several seeds planted around each tepee.

SPECIAL NOTE ON ALL BEANS:

—Two scientific facts about beans will help produce better crops. First, being legumes, they should be inoculated with special legume culture listed in supply section. This enables plants to manufacture their own nitrogen from the air. Second, bud drop of the tiny flowers (even before they can be easily seen) cuts the early set of pods. By spraying with a fruit setting spray these buds are held on and the early crop increased by as much as 100 per cent.

BEETS

Each "seed" is a fruit with several true seeds. No matter how thinly beets are sown, they will need thinning. Plant as soon as ground can be worked in spring, thin gradually (use thinnings as greens) until roots stand 3" apart. Make three sowings, one early, one three weeks later and one 60 days before fall.

BRUSSELS SPROUTS

Grow like late cabbage, but don't use

until after heads have matured.

CARROTS

Pick carrots when they are the size of your little finger for sweetest flavor. They can also be left to grow to maturity for storage. When harvesting always remove alternate carrots to give space to the remaining ones.

EARLY CABBAGE — COLLARDS

Start plants inside. Set out 12" x 24" as soon as weather is settled. Dusting with D.D.T. is safe if outer leaves are discarded, since plant grows from the inside out.

LATE CABBAGE

Direct-seed four months before crop is wanted. Or start plants indoors 30 days before needed, transplanting outdoors 90 days before frost. Don't water freely when heads are nearly filled, as this promotes splitting; irrigate only enough to keep plants growing well.

CELERY

Start in hotbed 60 days before needed. In setting outdoors, don't get soil in or over crown. Set 7" to 12" apart. Soil must be rich, moist and loose. As soon as plants have grown to 14" to 15" tall, set 12" boards on both sides of row and hold in place with earth. Or 4" drain tile can be used to blanch individual stalks. Celery must have warm, settled weather: if chilled, plants are likely to go to seed.

CHINESE CABBAGE

Must never be grown as a spring crop since it will only go to seed. Plant after June 15, as days are getting shorter, then it will head. An excellent succession crop to follow early peas,



SQUASH, Early Prolific Straightneck

CABBAGE, Golden Acre

CABBAGE, Copenhagen Market

SQUASH, Zucchini

ONIONS, Green Bunching

SWEET CORN

For the home gardener, the simplest way to plant sweet corn is in rows or drills, not in hills. Space the rows 36" apart, and plant a seed about every 3". Thin stalks to stand 9" to 12" apart in row. The drill should be 3" to 4" deep, but don't cover seed with more than 1" of soil. The drill or furrow can be filled in as the plants grow to anchor them against the wind.

Removing suckers has been standard practice with practically all growers. Now, experiments prove that removing suckers merely takes away extra food-producing leaves and so hurts rather than helps growth. Also, suckering often disturbs roots enough to injure plant. Always plant corn in several short rows side by side rather than one long row. Corn is pollinated by wind and rows side-by-side mean that all the stalks can be reached by the pollen. Many home gardeners, on reading newspaper accounts of corn de-tasseling, assume that this is necessary to set ears. On the contrary, removing tassels may cut the crop seriously. Detasseling is **only** done where hybrid corn is raised for seed purposes. The more pollen that flies, the better the set of kernels. So **don't** detassel sweet corn in the home garden. If weeds are under control, stop cultivating. If weeds are bad late in the season, work the soil as shallow as possible to avoid injuring surface feeder roots.

CUCUMBERS

Sandy soils with plenty of compost are

best. Roots have difficulty on heavy soils. Plant 8 to 10 seeds in a "hill". When vine is 6" long, thin to three strongest plants. Keep fruits picked to promote continuous fruiting. If compost isn't available, feed with commercial fertilizers. Use plenty of moisture: cucumbers are 90 per cent water.

EGGPLANT

Start seed indoors 8 weeks before plants are needed. Set out after weather is warm and settled. Feed and water liberally as Eggplant needs to be kept growing rapidly to produce well. D.D.T. will control pests that until now made this a tricky crop to grow.

ENDIVE

Strictly a cool-weather crop: gets bitter at temperatures much above 80 degrees. Plant very early and again in mid-July. Use last planting as late fall salad crop, and store surplus in cold frame or cellar by digging each plant with ball of soil. Space 12" apart in rows 18" apart. Feed liberally for bigger, crisper heads.

KALE

Grow like Brussels Sprouts.

KOHLRABI

Wants rich soil. Plant early in spring 6" apart in row. Must be used when young: woody when old. Make second planting three weeks later, and again after mid-July.

MUSKMELON

Plant 8 to 10 seeds to a hill after weather is warm. If grown in cool weather or

where nights are cold, will not bear well and melons will have poor flavor. Melons love plenty of compost or well-rotted manure. When vines begin to run, thin three plants to a hill. In damp soil mulch with clean straw or raise each fruit on a shingle to keep from rotting.

OKRA

Plant on rich soil when weather is hot and settled, spaced 36" x 15". Pods mature rapidly and must be picked or they will be inedible.

ONIONS

Sets produce sooner than seeds. Set 1" apart and pull every other set for use as green onions. Again pull every other onion, leaving balance of sets to mature as dry onions.

From seed, onions have better flavor. Green onions can be grown in about 60 days from seed. Use thinnings for green onions, leaving 4" apart for globe types and 6" for the big Spanish types to mature for dry onions. Latter can also be started indoors for largest bulbs and can be set out 6" apart after frost danger has passed. All onions need liberal feeding and watering.

PARSLEY

Seed germinates slowly; soak over night. Sow early as seed germinates poorly in hot weather. Space plants 6" apart. Plain parsley has best true parsley flavor: curly sorts better for garnishing. If leaves are cut off when plant is 3" tall, curly sorts will have better curl.

(Continued on Page 17)



ENDIVE, Full Heart

ONION SETS

SQUASH, White Bush Scallop

RADISH, Early Scarlet Globe

OKRA, Perkins Mammoth

BUSH BEANS, Tendergreen

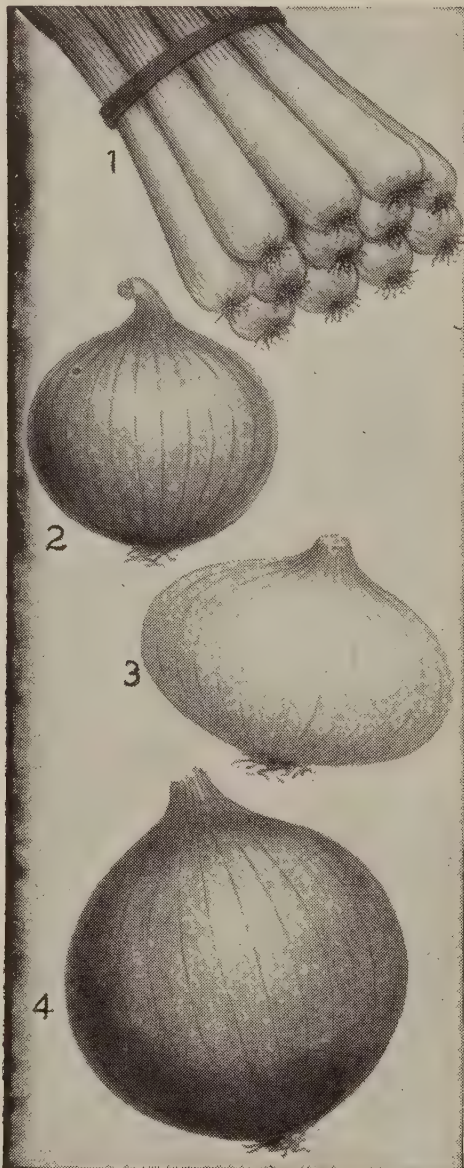
PEPPER, Long Red Cayenne

PEAS, Alderman (dark podded Telephone)

Peas

15¢ PER PACKET

ALL OTHER VEGETABLE SEEDS 10¢
EXCEPT WHERE OTHERWISE NOTED



ONIONS

1. White Bunching 2. Yellow Globe Danvers 3. White Portugal 4. Yellow Sweet Spanish.

MELONS, Continued

Hale's Best—Flesh thick, deep salmon-pink, sweet and tasty. Heavily netted rind, with faint stripe. Small seed cavity. Outstanding variety, resistant to powdery mildew. Weight, 4 lbs. 86 days.

Hearts of Gold or Improved Hoodoo—Nearly round 2-lb. fruit, distinctly ribbed, deep green with fine grey netting. Thick, deep salmon flesh, tender sweet. 94 days.

Honey Rock or Sugar Rock—Round, 4-lb. fruit. Gray-green skin, coarse, sparse netting. Orange-salmon, thick flesh, fine flavor. 85 days.

Pride of Wisconsin—Small seed cavity and thick, orange flesh, excellent flavor. Matures early. Large size. A new melon which is deservedly becoming a leader. 92 days.

Rocky Ford—Fruits small with rather large seed cavities. Nearly round. 2½ lbs. No ribs. Flesh thick and green with golden tinge at center. Very juicy and spicy. Excellent quality. 92 days.

WATERMELON

Requires about same culture as muskmelon, except the vines need more room. Fertilize each hill liberally and cultivate thoroughly.

Cole's Early—An early variety for the North. Medium size fruit, short oval with alternate dark and light green stripes. Pink-red flesh, black seeds and tender rind. 75 days.

Dixie Queen—Very prolific. Bright red, crisp, splendid quality fibreless flesh. Very few small, white seeds. 85 days.

Kleckley's Sweet or Wondermelon—Large, cylindrical, dark bluish-green, with thin, tender rind. Bright red, juicy, sweet flesh, creamy-white seeds with traces of brown. 85 days.

Stone Mountain—Also called Dixie Belle. High quality shipping variety. Fruits very large, oval-round, blunt ends. Dark green, tough rind. Flesh rich scarlet, fine grained, sweet. Seed white with black tips. 90 days.

Tom Watson—Red heart strain. Large fruit, uniform cylindrical, with tough, elastic rind faintly veined. 90 days.

MUSTARD

Sow as early as possible in the spring. Keep rows 6" to 12" apart and cover with soil ½" deep. You may also sow seed in autumn to raise greens and for salads.

Fordhook Fancy—Upright growing mild variety. Bright green leaves, plume-like and deeply fringed on the edges. 50 days.

Southern Curled Giant—Large, frilled, crumpled. Light green leaves. 35 days.

OKRA OR GUMBO

Sow in rows about 3' apart. Cover seeds with about 1" of fine soil firmly pressed down. Thin plants 18" to 24" apart when they reach 3" growth. Do not plant until ground is warm, as this is a tender, hot weather plant. Pick before woody fibres develop.

Dwarf Green—Early, prolific dwarf growing sort. Dark green fluted, 5 to 7-in. pointed pods. Most desirable, compact growing okra. 50 days.

Perkin's Mammoth Long Pod—Early and prolific. Very tender, long pods. Deep green and slightly corrugated. 68 days.

ONIONS

Plant as soon as soil can be prepared. For best yield, plant on very fertile land—fall plowed, and thoroughly fertilized. When plants are a few inches tall, thin to prevent crowding—using the plants removed as green onions. Those left to become fully ripe can be stored for winter. Cultivate and weed every 2 weeks during summer.

Yellow Sweet Spanish—Large, globe-shaped, exceptionally mild and sweet—excellent for eating raw or boiled. Light yellow skin and pure white, firm, crisp, and tasty flesh. 112 days.

Yellow Globe Danvers—An oval shaped, straw-colored onion. White flesh, crisp and mild. Splendid keeper. 110 days.

Southport White Globe—Best of the whites. Medium-sized, round, solid white bulbs, fine thin skin. Waxy white flesh, mild and fine grained. Keeps well in fall. 110 to 112 days.

White Bunching—A good Spring appetizer. Crisp and mild. A fine white onion for cooking when grown larger. 60 days.

White Portugal or Silverskin—Excellent flat variety. Dependable cropper, excellent for sets, for green bunching, or as a pickler. 100 to 102 days.

Southport Red Globe—Finest of all red onions. Perfectly round, good sized bulbs with thick, small necks. Skin is deep purplish-red. Strong flavored flesh, white tinged with pink. Good keeper, productive. 112-114 days.

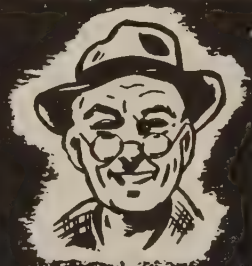
Old Gardener Says

Too bad that the marvelous new weed killers containing 2,4-D can't be used near the vegetable garden. With one possible exception, all common garden vegetables are quickly killed by 2,4-D. Tomatoes are particularly sensitive. If your sprayer has been used for weed spraying, never risk using it for insecticides afterwards.

When you do spray 2,4-D near the vegetable patch or desirable ornamental plantings, always be sure to use a heavy "breaking spray" that is, one that falls in

big drops without drifting, and that immediately breaks up into a liquid film as soon as it hits the leaves. If you use too much pressure and a fine spray, 2,4-D is likely to drift a hundred feet or more and injure desirable plants.

To kill big trees, growing close to the vegetable garden, don't spray. Instead, peel off the bark until the white moist growing layer or cambium is exposed. Wrap a cloth soaked in one part 2,4-D to three parts of water around this white part. The tree will absorb the 2,4-D both ways, killing both top and roots.



We're your neighbors! Our interest in your garden doesn't end when we ring up the sale!

ONION PLANTS

Sturdy, hardy plants that come to you all ready to set out. Ask for prices.

ONION SETS

Onion sets used instead of seeds will produce earlier crops of green onions or large bulbs. Plant sets right side up and cover with garden rake; then firm the soil well over the sets.

The quickest way to get onions early. We offer choice, select, dry sets, of the highest quality. (Prices on application.)

RED WHITE YELLOW

PARSLEY

Does best in rich, mellow loam. Seed is slow to germinate, and is helped by soaking in warm water over night before planting. Sow early and not too deeply. When curled varieties are about 3" tall, cut off leaves. The new growth will be brighter and curlier.

Moss Curled or Triple Curled—Compact, dark green leaves, curled and fine-cut. 70 days.

PARSNIP

Plant in rich, sandy loam, thoroughly pulverized. Seed requires plenty of moisture for germination and should be sown early. Dig after a killing frost. Freezing improves parsnips, so some can be left in the ground all winter and used in spring. For storage, bury in dry sand.

Hollow Crown (fr)—The most generally grown kind. Roots 2½ to 3-in. thick at shoulder. 12 to 14-in. long, uniformly tapered, hollow crowned. 95 days.

PEAS

Early peas need a light, warm soil; but general crop thrives best in moderately heavy soil. (Avoid fresh manure and very rich or wet, mucky soil as this produces large growth of vine at the cost of quality of the peas.) Plant seed in rows at 2" depth. Keep rows 21" to 28" apart for dwarf varieties and 28" to 42" for the taller types. Gather crop as fast as it is fit to use or new pods will cease to form and continue growth.

Early and Second Variety

Alaska—Wilt resistant. Used for canning and early home garden. Blunt, straight, light-green, 3-in. pods. Plants 32-in. 60 days.

Laxton's Progress (fr)—Medium dark green vine, 16 to 18-in. Single pods almost an inch wide and 4½ to 5-in. long with 7 to 9 large peas. 62 days.

Little Marvel (fr)—Outstanding, dwarf. Fine quality, large yield. Single and double, dark green, 3-in. pods—blunt, plump, well filled with 7 to 8 medium sized, light green tender peas. 62 days.

Thomas Laxton (fr)—Medium height. Strong vine bears numerous dark green, blunt ended pods, 4 to 4½-in. Retains flavor and sweetness. One of earliest. 57 days.

Later Varieties

Alderman or Dark-Podded Telephone (fr)—Large podded variety of the Telephone family. Excellent for home gardens, truckers, shipping to distant markets and for freezing; resistant to Fusarium wilt. Vine dark green, coarse.

Pods single, very broad, plump, straight, dark green, pointed; contains 8 to 10 peas of highest quality. Seed large, wrinkled, light green. 74 days.

Hundredfold or Laxtonian—Exceptionally choice and prolific. Dark green. Rather coarse vines. Straight pointed, well-filled 2½" pods. 62 days.

Edible Podded or Sugar

Mammoth Melting Sugar—Wilt resistant. Coarse light-green vine, 54-in. Single 4½-in. pods, broad, indented, light, blunt, stringless, without fiber, fleshy. Contains 7 peas. Seed large, round, creamy-white. 74 days.

PEPPERS

Warm, mellow soil in sheltered location is best. Start under glass. Cultivate regularly, drawing soil up around stems. When plants are 7" to 8" tall, hoe in light dressing of commercial fertilizer. Do not plant hot peppers near sweet; they are apt to cross.

Sweet

California Wonder Improved—Number one quality peppers, about 4-in. long and 3½-in. diameter, very smooth, 3 and 4 lobed, glossy green, turning bright crimson when ripe. Remarkably thick walls, tender, sweet. 75 days.

Pimento or Perfection—Best of the medium sized sweet peppers. Excellent for stuffing. Smooth, heart-shaped, about 3-in. long. 125 days.

Ruby King—All-America, bred for size and uniformity. Dark green turning to bright deep red fruit. Thick flesh sweet and mild. 60 days.

Continued on Page 19

How? When?

HOME GARDENING GUIDE

Where? Why?

Continued from Page 15

PARSNIPS

Must be planted as early as ground can be worked. Soil must be loose to a depth of 12" and cannot be heavy. Space 5" part. Cold weather turns starches into sugar and improves flavor. Roots are hardy: leave in ground over winter if desired.

PEAS

Plant variety Alaska as soon as ground can be dug. Plant wrinkled varieties (which have better flavor) when narcissus buds show color or when crocuses are in bloom. Peas are not satisfactory when weather turns hot. Tall varieties must be staked. Most home gardeners prefer dwarf varieties like Little Marvel. Peas want well-limed soil. Don't forget, inoculation improves production.

PEPPERS

Need long growing season: start indoors 8 weeks before plants are wanted. Set out after petals on apple blossoms have fallen. Set plants 15" x 24" and feed liberally for bigger fruits.

PUMPKINS

Follow muskmelon culture, or plant in corn after last cultivation.

RADISHES

As a rule the first crop to mature: plant as early as soil can be dug. Feed liberally for quick growth. Sow a 10 foot row every ten days until weather turns warm. Start planting again with the coming of cool weather in fall. The fall and winter types are sown in mid-summer to mature in fall for storage.

SPINACH

Seed in fall (protect with straw) or in very early spring. Must mature before hot weather.

Spinach (New Zealand)

While this crop grows freely in hot weather, it will not germinate except when soil temperatures are below 70 degrees. Hence it should be sown with the half-hardy crops—those that are planted when the narcissi bloom. Plant in soil with plenty of organic matter, spacing the plants about 3 feet by 3 feet. Keep them cut back, since only the young growing tips are eaten and long, woody stems have little flavor. Many who have tried a mixture of half Swiss Chard and half New Zealand Spinach say that this is better than either vegetable alone.

SQUASH

Follow culture given for muskmelon for vine types. Grow bush types in rows, spaced 24" apart. Keep picked. Will bear all summer.

TURNIPS

Follow directions for radishes. Thinnings can be cooked for greens.

TOMATOES

There are two schools of tomato culture—those who stake and those who don't. Reasons for and against are as follows:

FOR STAKING: While staked plants produce fewer fruits per plant, they produce more tomatoes for a given area. So if room is at a premium, it will pay to stake. Staked plants usually produce cleaner fruits and bear somewhat earlier.

AGAINST: Staking calls for much extra labor in staking, tying and pruning. The total production per plant is higher in un-staked and unpruned plants. If you have plenty of room, the saving in labor makes the un-staked method the best. All commercial canning crops of tomatoes are grown in this way.

If the ground under the vines is covered with a mulch of clean straw, this will improve the quality of the fruits and will also keep weeds down and save moisture.

When staking, set plants 18" apart in the row, in rows 3 feet apart. Use a 7 foot stake, driven 1 foot into the ground.

Tie plant to stake with soft twine or other plant tie. Habit of growth calls for a side shoot from the first point where a leaf joins the main stem, another side shoot from the second leaf joint, and a flower cluster from the third joint. This 2-1 pattern of growth is repeated up the entire stem.

The staked plant is allowed to grow from the tip, and as it grows, the stem is tied to the stake. As the side shoots appear, these are pinched out or rubbed off, leaving the flower clusters to produce fruits. When training tomatoes to stakes, be sure to leave all possible foliage to hide the fruits from direct sunshine; otherwise they will sunscald.

When grown without staking, the vines will sprawl on the ground. This means they will need more room. Three feet between plants and four feet between rows will not be too much ground to use if you can spare the room.



BEETS, Crosby's Egyptian (Center)
Early Wonder (Left)
Detroit Dark Red (Right)



RHUBARB CHARD



ONIONS, Yellow Globe Danvers



TOMATO, Jubilee



CANTALOUPE, Hale's Best



EGG PLANT, Black Beauty

How? When? HOME GARDENING GUIDE Where? Why?

Vegetable Garden Planting Guide

Seed Distance Distance Depth Approx.
Required Between Apart to Yield
for 50 ft. Rows In Row Plant Per 50 ft.
of row (inches) (inches) (inches) of row

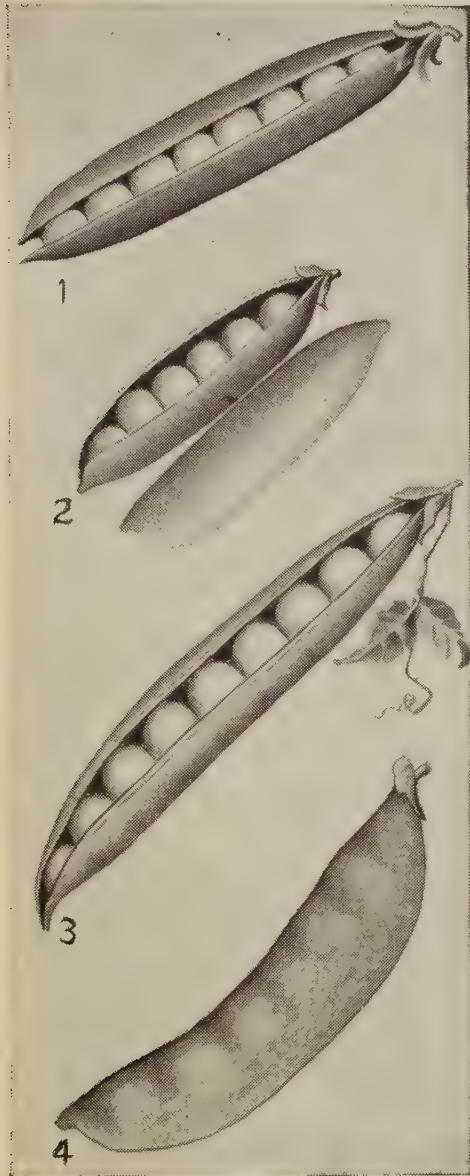
ARTICHOKE	1/8 oz.	48	48	1/4	
ASPARAGUS	1/2 oz.	24	20	1/2	25 lbs.
BEANS, BUSH	1/2 lb.	24	4	1 1/2	20 qts.
BEANS, LIMA	1/2 lb.	24	3	1	32 qts.
BEANS, POLE	1/2 lb.	36	8	1 1/2	30 qts.
BEANS, POLE LIMA	1/2 lb.	48	8	1 1/2	1 1/4 bu.
BEETS, TABLE	1/2 oz.	24	3	1/2	1 1/4 bu.
BEETS, MANGEL	1/2 oz.	28	4	1	
BROCCOLI	1/8 oz.	24	24	1/2	25 head
BRUSSELS SPROUTS	1/8 oz.	24	18	1/2	15 qts.
CABBAGE	1/4 oz.	24	12-24	1/2	35 head
CHINESE CABBAGE	1/2 oz.	24	12	1/2	40 head
CARROTS	1/4 oz.	16	3	1/2	24 qts.
CAULIFLOWER	1/4 oz.	24	20	1/2	25 head
CELERY	1/8 oz.	24	6	1/4	100 stalk
COLLARDS	1/4 oz.	30	18	1/2	3 bu.
CORN, SWEET	4 oz.	36	9	1	100 ear
CORN, POP	3 oz.	34	8	1	
CUCUMBER	1/2 oz.	48	36	1/2	100 fruit
DILL	1/4 oz.	18	4	1/2	
EGG PLANT	1/8 oz.	36	24	1/2	75 fruit
ENDIVE	1/2 oz.	18	12	1/2	50 fruit
KALE	1/2 oz.	32	22	1/2	50 plant
KOHLRABI	1/4 oz.	24	6	1/2	1 bu.

Seed Distance Distance Depth Approx.
Required Between Apart to Yield
for 50 ft. Rows In Row Plant Per 50 ft.
of Row (inches) (inches) (inches) of Row

LETTUCE	1/4 oz.	18	12	1/4	50 head
MUSKMELON	1/2 oz.	60	48	3/4	50 fruit
MUSTARD	1/4 oz.	24	9	1/2	1 bu.
OKRA	1 oz.	36	15	1	450 pods
ONION	1/4 oz.	18	4	3/4	1 bu.
ONION SETS	1 pt.	12	2	1	60 bun.
PARSLEY	1/4 oz.	12	6	1/2	45 bun.
PARSNIPS	1/2 oz.	18	4	1/2	1 bu.
PEAS	3/4 lb.	24	2	1	1 bu.
PEPPERS	1/8 oz.	30	20	1/2	300 fruit
PUMPKIN	2 oz.	96	60	3/4	25 fruit
RADISH	1/2 oz.	12	2	1/2	50 bun.
RHUBARB	1/2 oz.	48	48		100 stem
RUTABAGA	1/8 oz.	24	6	1/2	1 bu.
SALSIFY	1/2 oz.	18	2	1/2	300 roots
SPINACH	3/4 oz.	18	5	3/4	1 1/2 bu.
SPINACH, N.Z.	1/2 oz.	36	18	1	50 lbs.
SQUASH, BUSH	1/4 oz.	48	48	1	60 fruit
SQUASH, WINTER	1/4 oz.	72	72	1	35 fruit
SWISS CHARD	1/2 oz.	18	15	1	25 lbs.
TOMATO	1/8 oz.	40	36	1/2	2 bu.
TURNIP (roots)	1/4 oz.	18	4	1/4	1 bu.
TURNIP (greens)	1/2 oz.	12	4	1/4	1 1/2 bu.
WATERMELON	1/2 oz.	96	96	3/4	20 fruit

All Vegetable Seeds
10¢ PER PACKET
 UNLESS OTHERWISE NOTED

In bulk at money-saving prices.
 Special quotations to market gardeners.
 Prices subject to change without notice.



PEAS

1. Laxton's Progress 2. Little Marvel 3. Alderman or Dark-podded Telephone 4. Mammoth Melting Sugar.

PEPPERS, Continued

World Beater—One of the best large peppers. Glossy-green, changes to bright red. Mild, very sweet, thick flesh. 75 days

Hot

Hungarian Wax—Slender, waxy yellow fruit about 6-in. long, turns red when ripe. Very hot. 65 days.

Long Red Cayenne—The hot favorite. For canning, pickling, drying. Pungent flavored fruit, tapering and twisted. 70 days.

PUMPKIN

Plant in middle of spring among corn; or in hills 8' apart each way. Drop 4 seeds to a hill. If planted in hills, cultivate the same as melons and cucumbers. For winter use gather before frost (leave stem 3" to 4" long) and store in warm, dry place.

Connecticut Field—Large fruit with flat ends, 15 to 25-lbs. and up to 15-in. Surface, slightly ribbed, deep orange. Thick flesh, orange-yellow, sweet and coarse. 118 days.

King of the Mammoth—Largest of all pumpkins. Valuable for stock feeding and exhibition. Globular, slightly ribbed, flattened, weigh 60 to 90-lb. Flesh solid, yellow-orange, coarse, but good quality. 120 days.

Small Sugar or New England Pie—Desirable for pie or general use. Round, flat end fruit, deep orange. Thick, yellow-orange flesh. 118 days.

RADISH

Soil should be light, quick and rich to insure rapid growth. Slow growth makes the flavor too strong. Sow as early as ground can be worked, as radishes are very hardy. Make successive sowings up to hot weather. When in the third leaf, thin to give roots plenty of room. Pull promptly when mature. The secret of crisp, delicious radishes is quick growth, prompt picking.

Crimson Giant—Large round, 1 to 1½-in. Deep crimson roots. Very crisp and tender for its size. 28 days.

Early Scarlet Globe—Globular, slightly elongated, bright scarlet. 24 days.

Early Scarlet Turnip, White Tipped—Carmine red with white tip. Flesh white, crisp and mild. 26 days.

French Breakfast—Roots thicker toward

bottom. 1½-in. long by ½ to ¾-in. Dull scarlet, white tipped. 25 days.

White Icicle—Tapering roots 5 to 5½-in., very white with pure white, mild flesh. 27 days.

Fall and Winter Varieties

Celestial or Chinese White Winter—White flesh, rather mild in flavor. Roots large, 8" long and 2½ to 3 inches in diameter, cylindrical with heavy shoulder. 60 days.

Long Black Spanish—Good keeping winter variety. White, crisp and pungent. 8 to 9 in. long, slightly tapered. 58 days.

Round Black Spanish—Top-shaped. 3" to 4". Flesh white, crisp and of strong flavor. 56 days.

RUTABAGA

(See Turnip)

SALSIFY

Light, rich soil best and it must be stirred to a considerable depth. Sow in rows 18" apart. Cover seeds firmly with ½" of fine soil and thin plants later to 2" to 3" apart in the row. Cultivate the same as parsnips or carrots.

Mammoth Sandwich Island—A palatable and nutritious vegetable when cooked. Flavor is remarkably similar to oysters. 120 days.

SPINACH

Plant very early in spring—or start seed in fall (giving it protection by 3" of straw over the winter) and enjoy an early spring crop. Cut all spinach before hot weather as it doesn't do well in extreme heat. Sow again in August or September for fall crop. Spinach should be gathered before the flower spike appears.

Bloomsdale Savoy, Long Standing (fr)—A few days later than regular Bloomsdale Savoy. Holds from 12 to 14 days longer. 42 days.

Giant Nobel or Giant Thick Leaf—Large, vigorous, spreading plant, slow to form seed stalks. Heavy yielder. Large, thick, smooth, deep green leaves. 45 days.

New Zealand—Thrives in dry, hot weather. Can be picked repeatedly all season. Not a true spinach, but similar when cooked. 70 days.

Old Gardener Says . . .

Growing good root crops is an art.

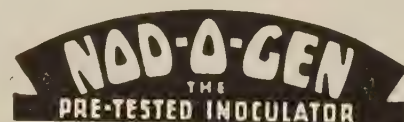
Good root crops can't be grown in stiff clay that bakes hard in the summer. It will pay to give special attention to the section in which you intend to grow these vegetables. Use well-rotted manure, compost or other organic matter. If you can't stick your index finger full length into the soil after you've added these modifiers, it's too hard for good root crops.

How to get more, better PEAS and BEANS and SWEET PEAS

NODOGEN—the pre-tested inoculator, on your garden Peas or Beans, also Sweet Peas, will amaze you and your friends with the larger and more vigorous growth. Your plants will have a darker and better color, also get off to an earlier start.

Plant a small part without **NODOGEN** to see the tremendous difference.

NODOGEN Garden Packet for Garden Peas and Beans, Sweet Peas and Lima Beans. Sufficient for 8 lbs of seed, 15c.





PEAS, Little Marvel (top)
Laxton's Progress (bottom)



PEPPER, California Wonder Improved



BEANS, Bountiful



TOMATO, Marglobe



RADISHES, Icicle and French Breakfast



TOMATO, Rutgers

How? When? HOME GARDENING GUIDE Where? Why?

Green Manuring a way to save weeding

A big help in reducing the amount of weeding necessary is the use of a green manure mulch on any patch of soil not being used. Whenever you remove one crop from your garden plot and won't use it again for at least several weeks, sow that spot with winter rye. Winter rye is not to be confused with rye grass. The right cover crop to use is the regular cereal grain—winter rye. Plant about 5 lbs. to 1,000 square feet to produce a thick stand that will crowd out weeds. This green mulch or cover crop will take up any unused fertilizers in the soil, and will store them in the leaves of the rye. Then the following spring when the rye is plowed under, this fertilizer returns to the soil and can be used by the succeeding crop. If the ground lies unused, most of this plant food will be lost down the drains. And because a heavy stand of rye will crowd out weeds, you should have a cleaner garden with less work the next year.

Mulching vs. Cultivation

Sometimes half-truths are as good as whole ones. The furor created by the book, "Ploughman's Folly," which advocated a trash mulch at the surface, made sense as far as the mulch was concerned. By plowing or digging in the conventional way and then mulching, the home gardener can take advantage of good soil preparation, plus the very real saving in labor that comes from using a mulch. With the right mulch, there is no need to weed, no need to stir the soil, and

once that mulch is applied, the need for watering (at least in normal seasons) is all but over. This should save hours of valuable time.

How to Mulch

A mulch is merely a covering of some material which won't support weed growth, and which is porous enough to trap air. This porous quality is important because it keeps down the loss of moisture from the soil and also keeps the heat of the sun from penetrating deeply and hurting root growth.

A perfect mulch is well-rotted, old manure. Never use fresh manure for a mulch because it will ferment and rot, and some of the gases released in this process can damage plants. But, when well-rotted, manure not only keeps down weeds and saves moisture, but can be worked into the soil after the growing season is over.

If grass clippings are allowed to lie on the lawn for a day or two to cure, they can be applied in thin layers, and gradually built up to form a thick mulch. If not dried, they may ferment and cause trouble.

Peat moss, if moist when applied, and if kept moistened, makes a perfect mulch. But since it may suck water away from the plants unless already moist, it must never be applied bone dry, nor should it be allowed to dry out. It is clean, weed-free and a good insulator.

Vermiculite, buckwheat hulls, rice hulls, ground corn cobs and clean straw are other materials that are satisfactory.

When to Mulch

Most gardeners wait too long to mulch. The soil should be moist, but not wringing wet. If spring rains have made the ground soggy, wait until you can cultivate without packing, and then apply. If the ground is dry, soak the soil thoroughly before mulching.

Mulching and Watering

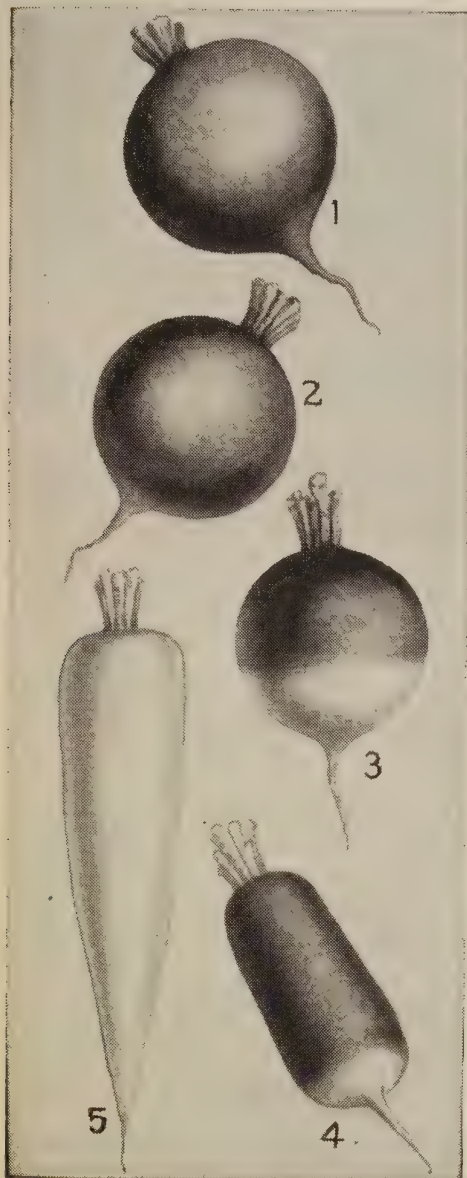
Always keep in mind that a mulch does not add any water to the soil, nor does it prevent the loss of water through the leaves of the plant. If rains heavy enough to penetrate the mulch do not fall, then you will have to water. This can be done by removing the nozzle from the hose and allowing it to flow out on top of the mulch. If the mulch is thick enough, there should be no washing of the soil.

Clean straw or dried grass used as a mulch under tomatoes will keep the fruit clean, and in addition will save the labor of staking.

Permanent vegetable storage space, either in the basement or outdoors will help extend the usefulness of the garden. This can also be used to keep tulip and other spring-flowering bulbs over summer, and for storing tender flowering plants like tree roses over winter. Often a hillside can be used to advantage, allowing access on a level with the floor of the storage room. In planning outdoor storage, remember convenient access from the house.

All Vegetable Seeds
10¢ PER PACKET
 UNLESS OTHERWISE NOTED

In bulk at money-saving prices.
 Special quotations to market gardeners.
 Prices subject to change without notice.



RADISHES

1. Crimson Giant 2. Early Scarlet Globe
3. Early Scarlet Turnip, White Tip 4. French Breakfast
5. White Icicle



... The man who plans and plants wisely this year can load his pantry shelves with gold!

SQUASH

Very sensitive to cold so delay planting until warm weather. Follow same care in planting and culture as for cucumbers and melons. Plant summer varieties 6 or 8 seeds in hills 3' to 4' apart each way and winter squash 8' apart. Plants bear longer if squash is picked off as soon as it is ready for use.

Summer Varieties

Early Prolific Straightneck (fr)—Earlier, smaller, and more productive than Giant Summer Straightneck, and more uniform. Brilliant yellow. 50 days.

Giant Summer Crookneck—Prolific, bush type plant, curved neck fruits around 4 to 5-lb., 20 to 24-in. long. 4 to 5-in. diameter. 56 days.

Mammoth White Bush Scallop—3½" long, 9" in diameter. Retain their white color at later stages. 56 days.

Zucchini—Straight, cylindrical fruits, 3 to 4 lb., 3 to 5-in. through, 10 to 14-in. long. Mottled and striped green-creamy-gray. Delicate flavored flesh. 60 days.

Fall and Winter Varieties

Butternut—Deep buff-colored, bottle-shaped fruits. Smooth, hard shell. Solid fine textured flesh, that is deep yellow, dry, sweet, with excellent flavor. 12-in. long, upper or neck section 3½-in. diameter. 85 days.

Golden Hubbard—Similar to Green Hubbard but earlier, smaller and more prolific. Somewhat pointed at each end. 8 to 10 lbs. Moderately warted. Orange-red with faint cream color stripes toward blossom end. Flesh deep orange, dry. Keeps well. 100 days.

Improved Green Hubbard (fr)—Most widely grown winter squash. Round, warted, dark green with thick yellow flesh. Weight 12 to 14 lbs. 100 days.

Table Queen or Des Moines (fr)—Acorn-shaped, green, deeply furrowed; flesh rich yellow, dry, mealy, delicious. Convenient size for baking and serving in halves. 100 days.

SWISS CHARD

(See Beets, Leaf)

TOMATOES

Do best in sandy, well pulverized loam. Sow seed in hotbed or indoors. When plants are about 2" high, set out, 3" apart, in boxes or pots—later

transplant into the garden. Or keep in flats until all danger of frost is past, and then set plants out directly into the garden. Water around the roots of the plants when setting them out, if ground is dry. Cultivate frequently until plants shade the ground. Remove all but the two or three strongest branches. Study methods of staking and training vines and adopt the one best suited to your situation.

Beefsteak—Rich scarlet-red, extra large fruits, more or less ribbed. Juicy, solid, with rich sub-acid flavor. One of the best for home use. 90 days.

Bonny Best—Second early variety, valuable for canners. Medium-vine, not very hardy. Medium-sized, apple-shaped, solid fruits, bright scarlet. 73 days.

Earliana—Open, spreading, medium small vines. Red fruits run to medium size. This seed is selected for thick, smooth fruit. 66 days.

John Baer—Thick, scarlet (similar to Bonny Best). Smooth, firm, medium large fruit. 70 days.

Jubilee—Orange colored fruit. Juicy with few seeds. Weighs about 6 oz. Bears over a long season. 72 days.

Marglobe—Moderately productive. Vigorous and resistant to wilt and rust. Fruits medium large, nearly round, smooth, and solid. Deep red. 77 days.

Oxheart—Plant open, spreading. Moderately productive. Fruits large, roughly heart shaped, pink, meaty and of mild flavor. 90 days.

Ponderosa—One of the largest varieties. Spreading large vines. Solid, fine flavored, pink with small seed cells. Somewhat rough and flat. Have a tendency to crack. 88 days.

Pritchard's, Scarlet Topper—Medium to large, round, with thick, firm flesh and small seed cavities. Brilliant red throughout, coloring right to top, without hard green spots. Free from acidity, one of the best home canners. Early.

Rutgers—Second early variety. Large thick stems, vigorous foliage. Fruits similar to Marglobe but flatter at stem end. Bright red, with thick walls. Red, firm flesh, low acidity. 72 days.

Stone Improved—Medium late. Ripens evenly and is uniform. Fruits large, flattened, but deep. Smooth, attractive, scarlet-red, of fine flavor. 86 days.

Continued on Page 23

Old Gardener Says

During the past few years, tomato diseases seem to be on the increase. One of the important reasons for this has been weather favoring the growth of aphids or plant lice. These aphids carry certain virus diseases that cause the plant tops to twist and curl. Affected plants seldom bear well.

Aphids grow fast once average temperatures go above 48 to 50 degrees. But their natural enemies, the lady bug, lace wing flies, insidious plant bug and the praying

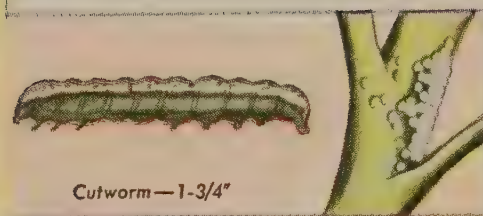
mantis, don't hatch out until warm, settled weather comes, and air temperatures average well above 70. For this reason a cool, late spring brings an increase in these diseases.

The answer is to hold back the transplanting of tomatoes outdoors until the weather is really warm and settled. Don't be fooled by a few warm days: be sure that summer is really here.

Once set out, plants should be protected by dusting or spraying until the aphid enemies really get going.

Portrait Gallery of Garden Insects

Being able to identify the insects that are causing ruin in your garden is a great stride toward their complete defeat. We present this group of natural-color portraits to make identification easy. Report the troublesome pests in your garden to us by name, and we'll be able to prescribe the right insecticides.



Cutworm—1-3/4"



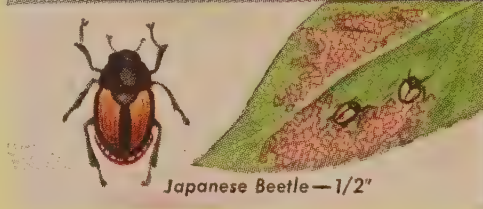
Tomato Hornworm—3" to 4"



Cabbage Worm—1"



Giant Slug—4" or more



Japanese Beetle—1/2"



Mexican Bean Beetle—5/16"

Garden Insects Really Aren't So Tough

When you get to know them, there's almost always a quick, easy way to their defeat.

That's why we have brought you this unique set of portraits of commonly encountered enemies of the garden. We have pictured them in full, natural color so that there may be no mistake in identifications.

If you'll use this portrait gallery as a reference guide, you can soon put a stop to the attack of garden pests. We know, from long experience, just how to handle them. We know the insecticide best for each situation . . . and we have it on hand ready for use.

NEW INSECTICIDES

Science has made great progress in its battle against the bugs. It has made gardening easier than ever before and has insured better results.

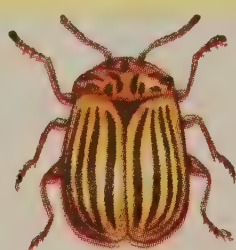
We keep very close watch on all new developments. We know exactly which of the new formulas have proved themselves . . . and what they can do.

This practical knowledge is at your service, whenever you need it!

**REMEMBER—
FOR INSECTICIDES
ALWAYS
SEE THE SEEDSMAN!**



Asparagus Beetle—7/32"



Potato Beetle—3/8"



Potato Flea Beetle—1/16"



Bean Weevil—1/8"



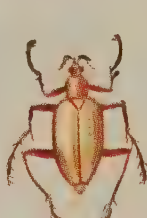
Chinch Bug—3/16"



Tarnished Plant Bug—1/4"



Red Spider Mite—1/60"



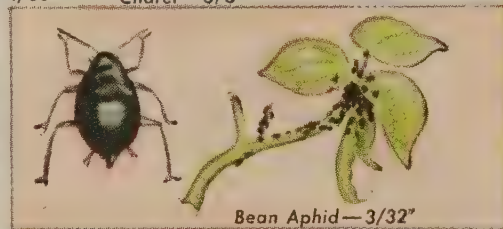
Rose Chafer—3/8"



Beet Leafhopper—1/8"



Melon Aphid—3/32"



Bean Aphid—3/32"



Squash Bug—5/8"



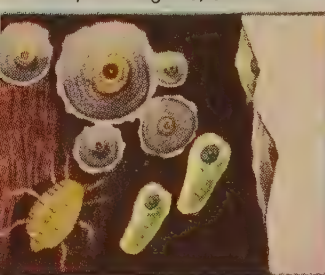
Sow Bug—1/2"



Mealy Bug—3/16"



Gladiolus Thrip—1/16"



San Jose Scale

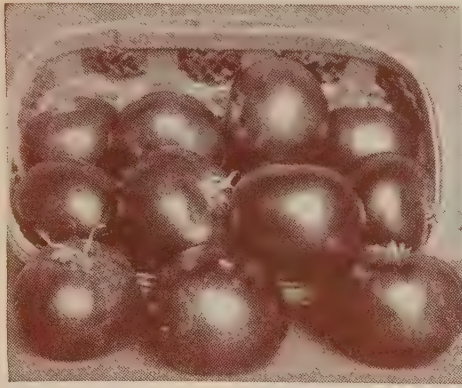


Corn Earworm—2"



Oyster-shell Scale

TOMATOES, Continued



Stokesdale — An extremely important development. Smooth, 7-oz. fruit brilliant color, exceedingly solid flesh and small seed cavities. Matures in the second-early group, a full week earlier than the Marglobe group. Usually ahead

of Bonny Best, too—and 2 ounces heavier.

Valiant—Plant sparse and open. Fruits large for an early variety, globe shaped and of bright scarlet color. 70 days.

Small Fruited—Red and yellow varieties, shaped like miniature pears, plums, and cherries; excellent for preserves.

TURNIP

For summer greens or roots, sow as early as radishes and lettuce. Then cut when plants are 6" high. Sow again in summer for fall and winter use. Turnips do best when most of their growth is made in autumn or early spring. Should be grown rapidly for best flavor and texture.

Golden Ball or Orange Jelly—Medium size, deep yellow with bronze-green top. Creamy yellow flesh of fine texture. 65 days.

Purple Top White Globe (fr)—All purpose variety. Large, sweet tops. Smooth,

All Vegetable Seeds
10¢ PER PACKET
UNLESS OTHERWISE NOTED

globe-shaped roots, purple-red above, white below. Sweet, tender, crisp, white flesh. 50 to 60 days.

Purple-Top Strap Leaf—Deep purplish-red on top, white below. Flesh white and never stringy.

Foliage Turnip

Seven Top or Winter Greens—For greens or foliage. Young shoots extremely tender. Roots tough, undesirable for food. 50 days.

Rutabaga or Swede Turnip

American Purpletop—Hardy and productive. Tender firm, light yellow, sweet flesh. 88 days.

PLANTING BY THE MOON

1949 Moon Phases and Positions

Many gardeners like to govern their planting by the phases of the moon. For them, we show here all the necessary information generally shown by more voluminous arrangements. As seedsmen, we cannot vouch for the effectiveness of this method, but we are glad to provide this complete and up-to-date chart for those who want it.

JANUARY	FEBRUARY	MARCH
1 ☾ 0:01a	2 ♀ 3:05a	1 ♀ 9:35a
3 ☽ 7:01a	4 ☽ 3:57p	3 ☽ 10:32p
5 ♀ 7:39p	7 ♀ 2:35a	6 ♀ 10:01a
8 ☽ 7:57a	9 ☽ 9:16a	8 ☽ 6:27p
10 ♀ 5:30p	11 ☽ 11:56a	10 ☽ 10:31p
12 ☽ 10:53p	13 ♀ 00:05p	12 ♀ 11:21p
15 ☽ 1:05a	15 ☽ 11:47a	14 ☽ 10:41p
17 ♀ 1:53a	17 ♀ 0:56p	16 ♀ 10:28p
19 ☽ 3:04a	19 ☽ 4:50p	19 ☽ 0:34a
21 ♀ 6:04a	21 ☽ 11:53p	21 ☽ 6:09a
23 ☽ 11:12a	24 ☽ 9:29a	23 ☽ 3:11p
25 ☽ 6:22p	26 ☽ 8:55p	26 ☽ 2:51a
28 ☽ 3:29a	Changes	28 ♀ 3:42p
30 ☽ 2:27p	☾ 6:20:0a	31 ☽ 4:28a
Changes	☾ 13:3:07a	Changes
☾ 7:5:47a	☾ 19:6:43p	☾ 7:6:42p
☾ 14:3:55p	☾ 27:2:54p	☾ 14:1:02p
☾ 21:8:09a		☾ 21:7:16a
☾ 28:8:43p		☾ 29:9:08a

Signs of the Zodiac and Their Influence

♈ **ARIES**: Tends to dryness, barrenness. Fairly good for cultivating, spraying and weeding.

♉ **TAURUS**: Fairly productive. A good sign for planting root crops particularly potatoes and bulbous plants.

♊ **GEMINI**: Dry and barren. Not good for any kind of planting or transplanting. Kill noxious growths.

♋ **CANCER**: Moist, very fruitful, most productive of the Zodiac. Planting and transplanting should yield good crops. Irrigate, bud, graft, transplant.

The table below shows when the moon enters each sign of the Zodiac. It also shows the moon's changes.

Under each month, we show first the time at which the moon enters each SIGN (day of the month and hour of the day, Central Standard Time). Then we show the moon CHANGES (day and hour) for each month.

☾ **1st QUARTER, MOON INCREASING**—During 1st Quarter of Moon plant the following: Asparagus, Broccoli, Brussels Sprouts, Cab-

♌ **LEO**: Most dry and barren sign. Use only to kill weeds, destroy roots, etc.

♍ **VIRGO**: Moist but barren. Not recommended for planting or transplanting; good for cultivating and destroying.

♎ **LIBRA**: Fairly fruitful. Seed for hay, corn, fodder, etc. Produces vigorous pulp growth, reasonable amount of grain. Good for flowers.

♏ **SCORPIO**: Next to Cancer in productiveness. Irrigate but do not dig potatoes.

♐ **SAGITTARIUS**: Generally considered barren but used by many for onions, seeding for hay, destroying weeds, etc.

♑ **CAPRICORN**: Earthly, fairly productive. Similar to Taurus but drier. Bulbous flowers, potatoes, tubers, root crops.

♒ **AQUARIUS**: Somewhat barren. Good only for cultivation and extermination of pests.

♓ **PISCES**: Similar to Cancer so use for same purposes. Very productive. Do not dig potatoes.

When to Plant

bage, Cauliflower, Celery, Corn, Cucumbers, Endive, Kohlrabi, Leeks, Lettuce, Spinach, Barley, Oats, Rye, Wheat.

☽ **2nd QUARTER, MOON INCREASING**—During 2nd Quarter of Moon plant the following: Beans, Egg Plant, Melons, Peas, Peppers, Pumpkins, Squash, Tomatoes, flowers, and cereals.

When possible, plant seed while the Moon is in the fruitful signs of Cancer, Scorpio or Pisces. The next

best signs are Taurus, Libra and Capricorn.

☾ **3rd QUARTER, MOON DECREASING**—During 3rd Quarter of Moon plant the following: Beets, Carrots, Chicory, Parsnips, Potatoes, Radishes, Rutabagas, Onions, Turnips, Tubers.

☾ **4th QUARTER, MOON DECREASING**—In 4th or Last Quarter of the Moon turn sod, pull weeds, and destroy noxious growths, especially when Moon is in barren signs, Gemini, Leo, Virgo or Aquarius.

APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
2 ♀ 4:02p	2 ☽ 6:40a	2 ♀ 10:52p	2 ☽ 7:22a	2 ☽ 7:26p	1 ☽ 6:08a	3 ☽ 5:22a	1 ♀ 11:36p	1 ☽ 7:21p
5 ☽ 1:05a	4 ☽ 1:09p	5 ☽ 1:57a	4 ♀ 10:22a	5 ☽ 0:39a	3 ☽ 1:38p	5 ♀ 5:28p	4 ☽ 0:37p	4 ♀ 7:26a
7 ☽ 7:01a	6 ♀ 5:10p	7 ♀ 4:13a	6 ☽ 1:41p	7 ☽ 7:37a	5 ☽ 11:29p	8 ☽ 6:26a	7 ♀ 0:54a	6 ☽ 5:31p
9 ♀ 9:28a	8 ☽ 7:07p	9 ☽ 6:25a	8 ☽ 6:00p	9 ☽ 4:47p	8 ♀ 11:15a	10 ♀ 7:02p	9 ☽ 11:32a	9 ☽ 1:26a
11 ☽ 9:47a	10 ♀ 7:54p	11 ☽ 9:41a	11 ☽ 0:11a	12 ♀ 4:22a	11 ☽ 0:12a	13 ☽ 5:47a	11 ☽ 7:58p	11 ♀ 7:29a
13 ♀ 9:29a	12 ☽ 8:59p	13 ☽ 3:28p	13 ☽ 9:04a	14 ☽ 5:17p	13 ♀ 0:44p	15 ☽ 1:31p	14 ♀ 1:38a	13 ☽ 11:42a
15 ☽ 10:17a	15 ☽ 0:01a	16 ☽ 0:42a	15 ♀ 8:44p	17 ♀ 5:19a	15 ☽ 10:48p	17 ♀ 5:43p	16 ☽ 4:31a	15 ♀ 2:12p
17 ☽ 2:19p	17 ☽ 6:24a	18 ♀ 0:45p	18 ☽ 9:34a	19 ☽ 2:11p	18 ☽ 4:58a	19 ☽ 6:4p	18 ♀ 5:17a	17 ☽ 3:33p
19 ☽ 10:02p	19 ☽ 4:27p	21 ☽ 1:28a	20 ♀ 8:55p	21 ☽ 7:07p	20 ♀ 7:30a	21 ♀ 6:19p	20 ☽ 5:18a	19 ☽ 5:00p
22 ☽ 9:10a	22 ♀ 5:01a	23 ☽ 0:16p	23 ☽ 4:47a	23 ♀ 8:55p	22 ☽ 7:41a	23 ☽ 5:08p	22 ☽ 6:24a	21 ☽ 8:27p
24 ♀ 10:00p	24 ☽ 5:42p	25 ☽ 8:00p	25 ☽ 9:15a	25 ☽ 9:25p	24 ♀ 7:23a	25 ☽ 8:13p	24 ☽ 10:30a	24 ☽ 3:25a
27 ☽ 10:39a	27 ♀ 4:24a	28 ☽ 0:30a	27 ♀ 11:34a	27 ♀ 10:21p	26 ☽ 8:26a	28 ☽ 1:56a	26 ☽ 6:35p	26 ♀ 2:06p
29 ♀ 9:46p	29 ☽ 0:36p	30 ♀ 4:24a	29 ☽ 1:21p	30 ☽ 1:03a	28 ☽ 0:11p	30 ☽ 11:25a	29 ♀ 6:20a	29 ☽ 2:57a
Changes	31 ☽ 6:35p	Changes	31 ♀ 3:45p	Changes	30 ☽ 7:15p	Changes	Changes	Changes
☾ 6:6:56a	Changes	☾ 3:9:26p	Changes	☾ 1:7:02a	Changes	☾ 6:8:53p	☾ 5:3:08p	☾ 5:9:09a
☾ 12:10:10p	☾ 5:3:35p	☾ 10:3:51p	☾ 3:2:11a	☾ 8:1:41p	☾ 7:4:05a	☾ 14:11:03p	☾ 13:9:42a	☾ 12:7:47p
☾ 19:9:30p	☾ 12:6:55a	☾ 18:6:33a	☾ 10:1:47a	☾ 16:5:03p	☾ 15:8:26a	☾ 21:3:25p	☾ 20:1:31a	☾ 19:0:55p
☾ 28:2:00a	☾ 19:1:28p	☾ 26:3:59a	☾ 18:0:02a	☾ 23:9:58p	☾ 22:6:21a	☾ 28:11:10a	☾ 27:4:05a	☾ 27:0:34a



Make your garden work full time. Succession seeding is the answer to high food prices.

Old Gardener Says

Most folks who talk about fertilizers overlook the two most important of all: air and water. Only about 1% of plant growth comes from the fertilizer elements like nitrogen, potash and phosphorus. 99 per cent comes from air and water. That's why it's important to see that your soil is loose, friable and well-drained, so that air can move thru it freely. Just as important: be sure your plants never lack for water because poor water supply can cut growth even more than lack of plant food.

At the same time, it doesn't pay to neglect feeding plants because the usual fertilizer elements don't seem to be important when considered by bulk. Lack of any one element can cut growth substantially.

That's why it's wise to be sure your garden gets a regular feeding with a well-balanced fertilizer every year. Ordinarily, it does not pay the home gardener to try to feed only the elements that might be lacking in his soil: a good application of a plant food that contains all elements is best.

Plan your garden for maximum yield

The best gardens don't just happen. A well-made plan is necessary if each square foot is to produce its maximum yield. And no one plan can be set up as best for all conditions . . . each garden must be laid out individually. The kind of vegetables to be grown and the system of cropping must be governed not only by the area and kind of soil, but by personal taste and the quantities to be produced.

For gardens of limited space, the smaller, quickly maturing vegetables such as beans, lettuce and tomatoes, which must be used fresh, are recommended. They must be cultivated by hand and may be planted close together.

In larger gardens a greater variety is possible. In such a garden, plans will probably include vegetables for canning or storing.

Put Plan On Paper

The garden plan should be drawn to scale on paper and should include planting distances, varieties, the length

of row necessary to supply the family needs and the amount of seed required. Preserve these records in order to improve your plans from year to year.

The following suggestions will help you to a more successful garden this year:

- Run the rows north and south. Plants will shade one another less and receive more sunlight.

- Crops that remain in the garden throughout the entire growing season should be located where they will not be disturbed.

- Early crops should be planted together. When they are harvested, the space can be used again for fall crops.

- Tall-growing and vine crops should be planted on one side of the garden where they will not shade or overrun the smaller crops.

- **Successive cropping should be practiced in every garden.** This may be carried out in two ways. One crop may follow another in the same season . . . late cabbage or sweet corn may be planted in the space from which early peas, beans, lettuce or radishes have been harvested. Or successive plantings of the same crop may be made at intervals of seven to ten days. This

will provide a continuous supply of such crops as sweet corn string beans, spinach and radishes.

- **Companion cropping is also important.** This is the growing of two or more crops on the same area at the same time. Quick maturing crops like spinach, beans, kale, lettuce and radishes may be planted between the rows or in the rows of eggplant, tomatoes, melons, okra or other crops that occupy the ground during the entire season. The early crops will have time to mature and be harvested before the later ones will require the entire space for full development.

The facts you need

Following each vegetable listing in this book you will find the term of maturity to help you time your plantings.

In another section of this book you will find the "Planting Guide For Vegetable Gardens" giving you information regarding spacing between rows and plants, amount of seed required, etc. With this information you are ready to plant a garden that will make full use of every square foot of space.

COMMON LAWN WEEDS

So that you may more easily know them by name, here are the pests that cause most of your lawn troubles. For easy ways to combat them, refer to the Weed Killer section on a later page.



CRABGRASS



YELLOW FOXTAIL



BROAD-LEAVED PLANTAIN



COMMON CHICKWEED



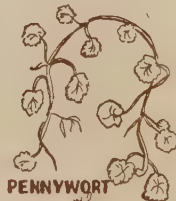
DANDELION



NARROW LEAVED PLANTAIN



HEAL-ALL



LAWN PENNYWORT



YARROW



GROUND IVY

McMahon's SEED ANNUAL

Season 1949

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FARM, FIELD AND GARDEN



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RAPID CITY, S. DAK. STURGIS, S. DAK.

GARDEN SEEDS

Garden seeds are all quoted POSTAGE PAID, and shipments will be made the same day your order is received. All our garden seeds are selected and grown under climatic conditions suited to this climate and will give excellent results under average conditions if planted early.

All Garden Seeds available in
5¢ and 10¢ packets
Add 2% Sales Tax to all
Garden Seed Orders

QUALITY SEEDS PRODUCE QUALITY VEGETABLES

BEANS

	½-lb	1-lb	3-lb
Improved Golden Wax	.25	.45	1.20
Pencil Pod Blk. Wax	.25	.45	1.20
Plentiful (Greenpod)	.25	.45	1.20
Burpee's Stringless	.25	.40	1.10
Kentucky Wonder	.25	.45	1.20
Henderson Bush Lima	.25	.40	1.10
Navy Beans	.12	.25	.70

BEEETS

	Oz.	¼-lb	½-lb
Early Blood Turnip	.20	.45	.80
Crosby's Egyptian	.20	.45	.80
Detroit Dark Red	.20	.45	.80
Swiss Chard Silver	.20	.45	.80
Golden Tankard Stock	.15	.40	.65

BRUSSELS SPROUTS

	Pkg.	Oz.
Dwarf Improved	.10	.60

CUCUMBERS

	Oz.	¼-lb	1-lb.
Everbearing	.20	.60	2.10
Chicago Pickling	.20	.60	2.10
Imp. Long Green	.25	.75	2.25
Early White Spine	.20	.60	2.10
Straight 8	.25	.75	2.25

CABBAGE

	Oz.	¼-lb
Golden Acre	.25	.75
Copenhagen Market	.25	.75
Ferry's Hollander	.25	.75
Late Flat Dutch	.25	.75

CAULIFLOWER

	Oz.
Snowdrift	1.00

CARROTS

	Oz.	¼-lb	1-lb
Chantenay	.20	.60	1.80
Danvers Half Long	.20	.60	1.80
Ox Heart	.20	.60	1.80
Nantes Coreless	.25	.75	2.25

SWEET CORN

	½-lb	1-lb	5-lb
Golden Hummer	.18	.30	1.20
Golden Bantam	.18	.30	1.20
Golden Sunshine	.18	.30	1.20
Tendergold Hybrid	.30	.50	2.25
Golden Bantam Hybrid	.30	.50	2.25
Alpine Bantam Hybrid	.30	.50	2.25

HERBS

	Oz.	¼-lb
Dill	.15	.40

LETTUCE

	Oz.	¼-lb
Blk. Seeded Simpson	.20	.60
Prizehead	.20	.60
New York 515 (Head)	.35	1.05

MUSKMELON

	Oz.	¼-lb	1-lb
Honey Dew	.20	.65	1.90
Rockyford	.20	.65	1.90
Milwaukee Market	.20	.65	1.90
Hales Best	.20	.65	1.90
Honey Rock	.20	.65	1.90

ONION SETS

	1-lb	5-lb
White Onion Sets	.20	.90
Yellow Onion Sets	.20	.90

ONIONS

	Oz.	¼-lb
So. Port Red Globe	.40	1.30
So. Port White Globe	.50	1.65
Yellow Globe	.40	1.30
Yellow Sweet, Spanish	.50	1.65

BERMUDA ONIONS

100 Plants	500 Plants	1000 Plants
.25	1.10	2.00

NASTURTIUMS

Sweet Peas

	Oz.	¼-lb	1-lb
Tall Mixed Nasturtiums	.25	.75	
Spencer Giant Sweet Peas	.25	.80	2.50

PEAS

	½-lb	1-lb	3-lb
American Wonder	.20	.35	.90
Little Marvel	.20	.35	.90
Everbearing	.20	.35	.90
Laxtonian	.20	.35	.90
Alaska	.20	.30	.80
Dwarf Telephone	.20	.35	.90
Dwarf Grey Sugar	.20	.35	.90

PARSNIPS

	Oz.	¼-lb
Hollow Crown	.15	.40

PEPPERS

	Oz.	¼-lb
Oakview Wonder	.50	1.50

PUMPKINS

	Oz.	¼-lb	1-lb
Connecticut Field	.15	.50	1.40
Sugar Pie	.15	.45	1.30

RUTABAGAS

	Oz.	¼-lb	1-lb
Imp. Am. Pur. Top	.10	.35	1.00

RADISHES

	Oz.	¼-lb	1-lb
Early Scarlet Globe	.15	.35	.95
French Breakfast	.15	.35	.95
Crimson Giant	.15	.35	.95
White Icicle	.15	.35	.95
Wh. Tip Sc. Turnip	.15	.35	.95
Rose Winterlong	.15	.35	.95

SPINACH

	Oz.	¼-lb	1-lb
Bloomsdale	.10	.25	.70

SQUASH

	Oz.	¼-lb	1-lb
Warty Hubbard	.20	.65	1.90
Table Queen	.15	.50	1.60
Yl. Sum Cr'neck	.15	.50	1.60

TOMATOES

	½-Oz.	Oz.
Ground Cherry	.40	.70
John Baer	.30	.50
Earliana	.40	.70
Victor	.40	.70
Marglobe	.30	.50

TURNIPS

	Oz.	¼-lb	1-lb
Purple White Globe	.10	.30	.90
White Egg	.10	.30	.90

WATERMELONS

	Oz.	¼-lb	1-lb
Dixie Queen	.25	.75	2.20
Coles Early	.15	.45	1.30
Kleckley's Sweet	.15	.45	1.40
Tom Watson	.15	.45	1.30
Stone Mountain	.15	.45	1.35
Early Kansas	.15	.50	1.50
Black Diamond	.20	.65	1.90
Early Canada	.15	.50	1.50

Fertilizer

Helps Millions Achieve Gardening Success!



Used successfully by professional and home gardeners for more than 20 years for lawn, flower, vegetable shrub and tree feeding. It's the easy, economical way to assure properly fed plants. A complete scientific plant diet, made by Swift & Company.

100# \$5.00 5# bag .50
25# 1.75 1# bag .15
10# .90 Tablets .10



VIGORO

Complete plant food

Vigoro Spreader 18" \$5.25
Vigoro Spreader 20" 7.50

SUPER PHOSPHATE—Aids plant nutrition and assists the plant to assimilate other ingredients. An efficient fertilizer element for lettuce, truck crops, cereal crops and alfalfa. 100# \$3.90

Treble Super Phosphate -Ton-\$87.00

BONE MEAL—All-purpose fertilizer, rich in the two principal plant foods—nitrogen and phosphoric acid. 100# \$5.70

HYPONEX

PLANT FOOD



Grows bigger, better house plants, flowers, vegetables, lawns, and trees in poorest soil—even in sand, cinders or water. Results sure. Doesn't burn. Clean, odorless, soluble powder. 1 oz. makes 6 gallons.

	Retail
1 oz. pkt. (packed 72 to case)	10c
3 oz. can (packed 36 to case)	25c
7 oz. can (packed 24 to case)	50c
1 lb. can (packed 12 to case)	\$ 1.00

PEAT MOSS—Fine for garden mulch, as it conserves moisture. When incorporated in the soil, it promotes growth and supplies humus, which is very essential for growing plants. Fine winter protection for lawns; also as a mulch on strawberry, perennial beds, roses, evergreens, etc.

Per bale \$4.75



ZOTOX
CRAB GRASS KILLER
A new chemical which kills both seeds and plants.

8 oz. bottle \$1.00

Purina Garden Dust 1# Pkg.-\$.60
Purina DDT Garden Dust 1# Pkg.- .65

Lawn Grass

Prices Postpaid
Sow 5# per 1,000 Sq. Ft.

TOP LAWN SEED

A combination of the finest quality seeds—a mixture which we have developed after years of experience. All of the grasses in it are fine-bladed and deep rooting. There just isn't a better combination than this for the lawns of this territory.

1# \$.95 10# \$9.00

Kentucky Blue Grass

Produces a deep dark green lawn of close, thick turf. Maintains its green color until late in fall. Roots are deep, plants very hardy.

1# \$.90 10# \$8.50

White Clover

Very desirable in lawn mixtures because of its rapid, low growth and creeping stems. Valuable as a green cover for poor ground.

1# \$1.20 10# \$11.50

Rye Grass

A rapid grower, valuable in mixtures demanding quick effect. Not long lasting. Good in moist soils.

1# \$.25 10# \$2.00

Bent

Makes a thick, dense turf on heavy, sour soils and being of a semi-creeping habit will recover the ground after injury. Unexcelled for fine lawns and putting greens.

1# \$1.25 5# \$6.00

POATRIVIS

Poatrivis (shady)
Especially for shady places where it is hard to get a satisfactory lawn.

1# \$1.30 5# \$6.25

FAIRWAY STRAIN CRESTED WHEAT GRASS

Fairway Strain Crested Wheat Grass
We have selected a special fancy lot for lawn purposes -- the dry land lawn grass.

1# \$.70 5# \$3.25

SLUG-EM - To control Snails, Slugs and Cutworms in your garden and lawn.

1# Pkg. \$.50

AIROSPRAYER

Handy sprayer for applying WEEDONE to your lawn. Every spraying job around the home, garden, or dairy barn is easily accomplished with AIROSPRAYER. It provides a constant flow of liquid with double-action pumping and has five different nozzle settings that range from a fine mist to a heavy solid stream.

Each \$6.25

Kill Lawn Weeds

WEEDONE

the original 2,4-D weedkiller

Spray your lawn with Weedone. Grass is not affected, but dandelions, plantains and other noxious weeds curl, dry up and die. Weedone kills poison ivy, poison oak, bindweed and honeysuckle, too. Safe for people and pets. Does not corrode spray equipment.

Trial size can, 75c • Quart, \$2.50
Gallon, \$6.50 • Larger sizes on request

SPOT-KILL

Lawn Weeds

WEEDUST

(TRADEMARK)

2,4-D in the ready-to-use can

Kill those here-and-there weeds in your lawn with Weedust—2,4-D in powder form. Just shake a pinch of Weedust directly on the weed from the can. No mixing or measuring or sprayer needed.

Large size can, 75c
Enough to kill 1,000 weeds

FASTER, SURER ROOTING

for cuttings, seeds and bulbs

ROOTONE

the plant hormone powder

Rootone stimulates the natural tendency of seeds, cuttings and bulbs to put out roots. Rooting is faster and heavier, resulting in bigger, earlier plants. Endorsed and used by leading growers everywhere.

Trial packet, 25c • 2-oz. package, \$1

TRANSPLANT SAFELY

TRANSPLANTONE

Transplantone reduces shock and wilt when seedlings and plants are moved. Stimulates root growth so that fewer seedlings die and more come to early, healthy maturity. Used to water plants, shrubs and trees, Transplantone encourages growth and bloom.

½-oz. packet, 25c • 3-oz. package, \$1



Field Crop Seeds



NOTICE - PRICES INCLUDE BAGS AND ARE SUBJECT TO MARKET CHANGES

— Wheat — February 12, 1949 — Oats —

MIDA WHEAT is a rust resistant, high-yielding spring variety. It is a bearded wheat, high in protein, and has a strong straw.

\$2.55 per bushel 10 bushel or more @ \$2.45

PILOT WHEAT is a bearded, rust resistant, non-shattering variety. It is a good yielder.

\$2.55 per bushel 10 bushel or more @ \$2.45

DURUM WHEAT is being planted in larger quantities each year. Producers claim that it is the surest crop of wheat that can be raised.

\$2.55 per bushel 10 bushel or more @ \$2.45

THATCHER WHEAT is a beardless variety. It is resistant to both leaf and stem rust.

\$2.50 per bushel 10 bushel or more @ \$2.40

CERES WHEAT is a bearded variety. It is drouth resistant, but susceptible to rust.

\$2.50 per bushel 10 bushel or more @ \$2.40

REGENT WHEAT is a beardless variety similar to Thatcher. Slightly taller than Thatcher.

\$2.55 per bushel 10 bushel or more @ \$2.45

— Barley —

CERTIFIED FEEBAR BARLEY is a new, early maturing, strong straw, drouth resistant, feed barley. Results last year were very good.

\$2.50 per bushel 10 bushel or more @ \$2.40

SPARTAN BARLEY is an early maturing smooth-awn, 2 row barley with a strong straw. Feed type.

\$1.55 per bushel 10 bushel or more @ \$1.45

MONTCALM, newest, high-yielding, hard-malting type. North Dakota experimental station reports it outyielded all other varieties. Strong straw and smooth bearded.

\$2.50 per bushel 10 bushel or more @ \$2.40

WISCONSIN No. 38 is a heavy-yielding, 6 row, malting type.

\$1.80 per bushel 10 bushel or more @ \$1.70

KINDRED BARLEY is a bearded, 6 row, barley of high-malting quality adapted to this part of the country.

\$1.90 per bushel 10 bushel or more @ \$1.80

— Flax —

KOTO FLAX is the most widely adapted of all flax varieties. Wilt and rust resistant. Has been outyielding other varieties from 4 to 12 bushels per acre.

Price per bushel \$8.75

ARROW FLAX has recently been released by the State of Montana. Rust resistant with a higher yielding ability.

Price per bushel \$7.75

RED WING FLAX Price per bushel \$6.75

CLINTON OATS - Resistant to stem and leaf rust. Resistant to blight and root-rot disease. Has the stiffest straw of any variety available, therefore, a good oats for combining. Has a higher yielding ability, kernels are plump and more valuable for feeding.

\$2.00 per bushel 10 bushel or more @ \$1.90

BRUNKER OATS is a high-yielding, early oats. Due to its early maturity it oftentimes escapes drouth and grasshoppers, and makes a crop when others fail.

\$1.25 per bushel 10 bushel or more @ \$1.15

BOONE OATS has proven to be one of the most-successful varieties to be developed the past few years. It is an early, yellow oat which has a short, strong straw, and is resistant to most known races of rust and smut.

\$1.20 per bushel 10 bushel or more @ \$1.10

GOPHER OATS an early variety and good yielder.

\$1.15 per bushel 10 bushel or more @ \$1.05

— Rye —

FALL RYE

\$1.65 per bushel 10 bushel or more @ \$1.55

SPRING RYE

\$1.85 per bushel 10 bushel or more @ \$1.75

— Speltz —

SPELTZ Price per bushel \$2.50

DU PONT SEED DISINFECTANTS

CERESAN-M to control smut and other seed-borne diseases on wheat, oats, barley, flax and sorghum seeds. 1-lb. treats 32 bushel of grain.

14 oz. \$.90 3 lbs. \$2.65 40 lbs. \$28.75

SEMESAN Jr. for seed corn. Helps protect seed against rotting in the soil, checks forms of blight and root-rot. Improves the germination.

1-1/2 oz. \$.17 12 oz. \$.62

SEMESAN BEL used to treat seed potatoes for dry rot and scab.

2 oz. \$.35 1 lb. \$1.83

ROCKER SEED TREATER \$75.00
Automatic - No power required.

DISCLAIMER: McMahon Co. Inc. gives no warranty expressed or implied as to the productiveness of any seeds it sells, and will not be in any way responsible for the crop. Our liability, in all instances, is limited to the purchase price of the seed.



DO NOT GAMBLE WITH SEED OF UNKNOWN ORIGIN



"Registered Brands" Field Seeds

All seeds are tested and tagged in compliance with the State seed laws.

NOTICE - PRICES INCLUDE BAGS AND ARE SUBJECT TO MARKET CHANGES

Alfalfa

February 12, 1949

HYBRID

Seed Corn

Our alfalfa seed, listed below, is all Northern grown. It was grown in Western South Dakota, Wyoming and Montana. This is the hardiest seed available. Free samples upon request. Let us fill your orders early.

SPECIAL

Choice Dak-12 Seed (97 Pure) only \$54.50 cwt.

DAKOTA No. 12

	1#	100#
Dak-12 (98.50 Pure)	\$.61	\$58.50
Dak-12 (99 Pure)	.64	60.00
Low Grade	40.00 to	50.00

GRIMM

	1#	100#
Dakota Grown (99 Pure)	\$.65	\$61.00

COSSACK

	1#	100#
Dakota Grown (99 Pure)	\$.66	\$62.00
Certified Blue Tag (per bu.)		Sold Out

NEW RANGER ALFALFA

Per lb. \$1.25 100 lbs. \$105.00

CLOVER

	1#	100#
Yellow Blossom (99 Pure)	\$.24	\$19.50
Yellow Blossom (98 Pure)	.22	18.00
Alsike Clover (99 Pure)	.40	37.00

Grasses

INTERMEDIATE WHEATGRASS called **REE GRASS** - It is very drought resistant and it stays green in the hot summer when Crested is dry.
1 lb. \$.90 100 lbs. \$80.00

	1#	100#
Crested Wheat Grass	\$.53	\$47.50
Western Wheat Grass	.30	27.50
Brome Grass	.40	37.50
Domestic Rye Grass	.20	16.50
Timothy	.25	22.50
Timothy and Alsike (80-20)	.35	29.75

PASTURE MIX

A carefully blended pasture mix for grazing by all livestock. Contains the following:
Western Wheatgrass, Sweet Clover, Crested Wheatgrass, Alsike Clover, Brome Grass, Rye Grass and Alfalfa Seed.

Per lb. \$.35 100 lbs. \$31.50

REGISTERED BRAND HYBRID Seed Corn is the hybrid that has produced such startling results the past few years. It is an early 90 day Wisconsin corn, proven to be adapted to this part of the country.

\$9.50 per bu. 5 bu. @ \$9.00 per bu.

KINGSCROST, KF-1, one of the biggest developments in agriculture for the far Northern farmer. A cross between flint and dent varieties - combines the best features of each. Similar in maturity to Falconer, an 80 day corn.

\$12.00 per bu. 5 bu. @ \$11.50 per bu.

KINGSCROST HYBRIDS - Here are three Hybrids that are dependable, early maturing and have proven to be heavy yielders. Let us help you select the type best adapted for your needs.

KE - 3 80 day maturity
KE - 2 85 day maturity
KE - 1 90 day maturity

\$12.00 per bu. 5 bu. @ \$11.50 per bu.

OPEN POLLINATED

Black Hills Special Yellow Dent	per bu.	\$4.25
Black Hills Yellow Dent		3.75
Paynes White Dent		3.75
Falconer Dent		4.00
Rainbow Flint		4.00
Gehu Flint		5.00
Squaw Corn		4.00
Blue Squaw		4.00

SUDAN GRASS

SWEET SUDAN GRASS produces lots of sweet juicy, palatable forage feed for all livestock. Produces heavier growth, remains green longer, lots more leaves. Plant some this year. Far superior to common Sudan.

	1#	100#
Sweet Sudan Grass	\$.15	\$12.50
Sudan Grass (Texas Grown)	.13	10.00
Sudan Grass (S. D. Grown)	.10	8.50

Millet

	1#	100#
Millet, Proso	\$.08	\$5.00
Millet, Red Proso	.08	4.50
Millet, Siberian	.09	6.00

FORAGE SEEDS

	1#	100#
Cane, Black Amber Low Acid	\$.07	\$ 5.50
Cane, Rancher Cert. Blue Tag	.10	7.25
Cane, Orange	.08	5.75
Milo, Martins Combine	.07	5.25
Milo, Midland	.07	5.25
Sunflower	.40	
Dwarf Essex Rape	.22	19.50
Sweet Stock Kaffir	.08	5.75

We have our own Seed Analyst and Seed Testing Laboratory which enables us to offer you Proven Quality.



	Boom	Tank	Tread	Weight	Clearance	
Economy 4-13T	13-ft. one piece	50 gal	64"	225#	24"	\$276.00
Economy 6-20T	20-ft. one piece	50 gal	64"	245#	24"	298.00
Standard 6-20T	20-ft. folding	125 gal	64"	550#	26"	418.00
Big 8-26T	26-ft. folding	125 gal	64"	550#	26"	430.00
Super 10-32T	32-ft. folding	125 gal	64"	600#	26"	442.00
Prairie Spec.	12-40T 40-ft. folding with outboard wheels	175 gal	64"	700#	17-1/2"	572.00

All trailer models except Economy Models are listed without tires. Economy models complete with 4.00 x 12 tires.

STANDARD TRACTOR MOUNTED SPRAYERS

Economy 4-13	(13-foot, one piece boom Weight 100 lbs.)	\$ 98.00
Economy 4-20	(20-foot, one piece boom Weight 120 lbs.)	118.00
Standard 6-20	(20-foot, folding boom Weight 150 lbs.)	174.00
Big 8-26	(26-foot, folding boom Weight 170 lbs.)	186.00
Super 10-32	(32-foot, folding boom Weight 190 lbs.)	198.00

Pump driven from Power Take-off on all the above sprayers.



The famous 2,4D weed-killer

*The Original and Unsurpassed
2.4D Formula*

ACCEPT NO SUBSTITUTES

WEEDONE CONCENTRATE 48

Contains 3 lbs. 2.4-D acid as the ethyl ester
Apply 1/3 to 2/3 pt. per acre for annual weeds.

- 1 gallon can\$9.25
- 5 gallon can 9.00 per gal.
- 54 gallon drum 8.70 per gal.

WEEDAR 64

Contains 4 lbs. 2.4-D acid as the alkanolamine salt
Apply 1/2 to 1 pt. per acre for annual weeds.

- 1 gallon can\$8.75
- 5 gallon can 8.50 per gal.
- 54 gallon drum 8.10 per gal.

GENERAL DIRECTIONS: Add the quantity of WEEDONE 2.4-D product, required by crop being sprayed, to the amount of water used to cover an acre.

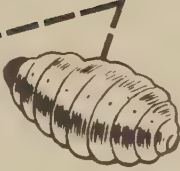
Free Chart giving recommended quantity of WEEDONE 2.4-D products for various crops furnished upon request.



Rolla Marsh standing in a weed patch on his farm 8 miles east of Rapid City. (above)



Mr. Marsh standing in the same weed patch two weeks after it had been sprayed with WEEDONE 2.4-D products. (above)

Grubs
Kill 'em with 

COLORADO .44 GRUB KILLER
(Emulsifiable Concentrate)

Made with Rotenone and Pyrenone. Kills Grubs, Lice and Ticks in one application. For Grubs, use 1 gallon to 100 gal. water; for lice and ticks, use 1 gallon to 400 gal. of water.

Quart \$3.75 ea. Gallon \$10.95 ea.
5-Gallon Pail \$10.80 gal.

ROTRATE 5

Wettable Rotenone impregnated concentrate powder, contains 5% Rotenone and other cube resins.

3# Pkg. \$2.00 ea. 7-1/2# Pkg. \$4.50 ea.
50# Bag \$26.50 each

PURINA INSECT KILLER

Contains Rotenone and DDT. Kills Grubs, Lice, Ticks, Flies and Fleas. Can be used as a dusting powder or as a spray.

6 oz. Can \$.65 ea. 5# Can \$3.75 ea.
50# Drum \$28.50 each



PURINA FARM SPRAY

Made with DDT and 1068 (chlorinated hydrocarbons) for quicker initial kill and longer sticking qualities.

1# Can .95 ea. 3-1/3# Pkg. \$2.35
50# Bag \$30.00 each



PURINA HOME SPRAY

Pint DDT Spray .40 each
Quart DDT Spray .75 each

PURINA DAIRY SPRAY

Without DDT
Gallons \$1.75 each



PURINA DAIRY SPRAY CONCENTRATE

Contains 25% DDT. To be mixed with water.

Pint bottles \$.90 each
Quart bottles 1.75 each

CER-O-CIDE, GRAIN FUMIGANT

For the control of Weevils and Beetles in stored grains. Kills all stages of infestation (Egg, Larva, Pupa, and Adult). Use only 2 gallons for every 1000 bushels of grain.

Gallon \$3.50 ea. 5 Gal. Drum \$330 gal

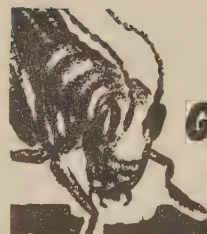
RAT & MOUSE POISONS

Cowley's Liquid Rat & Mouse Poison, Btl. \$.50 ea.
Purina Rat Killer No. 1, contains ANTU .50 ea.
Free booklet on instructions for killing Rats may be had upon request.

PURINA PIGTAB GRANULES

Worm your hogs the easy way. Simply mix the Pigtabs Granules with the feed. The cost is only 9¢ per pig.

One 10-dose Can \$.90 each



WIPE OUT
DESTRUCTIVE
GRASSHOPPERS
WITH

The World's Most Efficient, SAFE TO USE Insecticide

U.S. Dept. of Agriculture reports Colorado 44, applied at 1 qt. per acre, killed 90 to 100% of the grasshoppers in alfalfa and continued to protect the crop from 2 to 3 weeks.

COLORADO .44 Brand, "CHLOREM 40"

Water soluble - 40% Chlordane. Use for the killing of Grasshoppers and other insect pests which attack agricultural crops.

5 Gallon Pail \$8.25 gal.

MACKOPHENE "F"
(Chlorinated Camphene)

Contains 4# Toxaphene per gallon. For young grasshoppers, use 1-1/2 quarts per acre (diluted with water). For mature grasshoppers or in dense or dry foliage, apply two quarts per acre.

1 Gallon \$3.95 ea. 5 Gal Drum \$3.75 gal.
55 Gallon Drum \$3.50 gal.

COLORADO .44, "5% CHLORDANE DUST"

For those who prefer ready-to-use dust to control insects attacking crops.

5# Pkg. \$1.95 ea. 50# Bag \$15.50 cwt

COLORADO .44, "KILZIT"

(2% Chlordane in a spray base oil). For indoor use in the homes and buildings to control roaches, black widow spiders, spiders, bedbugs, water bugs, and certain other crawling insects.

1 Pint bottles \$.59 each



COLORADO .44, EMULSION CONCENTRATE

(Water soluble - contains 44% Chlordane)
Kills Grasshoppers, Lice, Ticks, and many others.

1/2 Pint \$1.25 ea. 1 Gallon \$11.00 gal.
1 Pint 2.25 ea. 5 Gal. Pail 10.30 gal.
1 Quart 3.75 ea. 55 Gal. Drum 10.00 gal.

50% Wettable DDT Powder

4# Pkg. \$1.50 ea. 50# Bag \$32.50 cwt

BENZINE HEXACHLORIDE
(6% Gamma Isomer)

6# Pkg. \$2.25 each

MORTON'S SMOKE SALT

Use Sugar-Cure for Hams & Bacon, the fast curing salt that imparts that rich smoke flavor. Use Tender-Quick for the special cure with the Meat Pump (brine and dry cure).

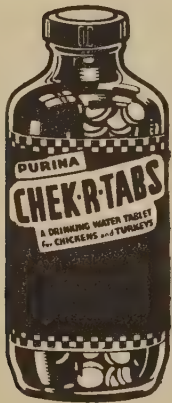
7-1/2# Sugar-Cure .90 ea. 3 oz. Meat Season .15 ea.
4# Tender-Quick .90 ea. 10 oz. Sausage " .35 ea.
Meat Pumps \$2.10 each

Mc MAHON Quality CHICKS



START CHICKS RIGHT - Feed the new Purina Chick STARTENA CHECKER-ETTS. New granular type of feed that gives 12% faster growth. These new crushed checkers are easy to pour, less waste, and the Chicks like 'em better. Be sure to order Purina Chick Startena Checker-etts with your chicks. Two pounds per chick is all that you will need.

POULTRY Sanitation SUPPLIES AND EQUIPMENT



CHEK-R-TABS - During the first critical month help protect your chicks against disease and infectious colds by using Purina Check-R-Tabs in their drinking water.

30 tablets	\$.25
150 tablets	1.00
600 tablets	3.00

CHEK-R-FECT - Powerful germ killing disinfectant for the brooder house. Has a pleasing odor, and is non-irritating.

Pint bottle \$.75 each

CHLORENA POWDER - Use as rinse for feeders and fountains to cut film and kill germs. Recommended too, as dust for birds suffering from colds.

1 - lb. \$.65 3 - lbs. \$1.50

CHEK-R-TON - Kills large round worms, peps up appetite, helps put sluggish, run-down birds back on the nest.

3 - lbs. \$1.45 6 - lbs. \$2.75

1949 Prices on Straight-Run Chicks

Breed	AAA Grade	Special Mating
Austra Whites	16.00	18.00
White Rocks	15.50	17.50
White English Leghorns	15.50	17.50
White Wyandottes	15.50	17.50
New Hampshire Reds	15.50	17.50
Buff Orpingtons	15.50	17.50
Rhode Island Reds	15.50	17.50
Black Australorpes	15.50	17.50
Barred Rocks	15.50	17.50
Hamp Whites	15.50	17.50

TERMS: \$2.00 down per 100 chicks when ordered, balance upon arrival.

Prices on sexed chicks will be furnished upon request. Inquire about our special breeds for Broiler or Fryer Chicks.

SPECIAL MATING: These are the finest chicks we handle. The flocks for these matings are headed by males from pedigreed and R. O. P. bloodlines, from some of the outstanding strains in this country. They are EXTRA QUALITY chicks and are the cheapest chicks in the long run, because of their high egg-laying ability.

NOTICE: On orders for less than 100 day-old chicks, add one cent per chick. Prices are subject to change without notice. We guarantee 100% delivery.

ROOST PAINT - To help control lice and mites just paint a thin strip on the roosts.

1/2 Pint	\$.85	1 Pint	\$1.35
	1 Quart bottle		\$1.95

PEAT MOSS LITTER



Peat Litter is sanitary, holds down odors, absorbs moisture and is considered the best poultry litter on the market. Try a bale this year.

Per Bale \$4.75

Chowder Hopper and Guard (Hanging Feeder)	Each	\$3.10
48" All Metal Feeder	Each	2.90
24" Chick Feeder	Each	.35
Poultry Waterer (3 gallon)	Each	2.10
Chick Glass Founts	Each	.15
Chlorena Duster, Hudson	Each	.75
Dobbins Duster	Each	1.50
Electric Water Warmer	Each	3.85
Atomizer Sprayer	Each	.40
Pressure Sprayer, 3-1/2 gal	Each	8.25
Airosprayer, portable hand	Each	6.25

INSECT OIL



Keeps down mites in one thorough application a year. Easily applied to control bedbugs, bluebugs and sticktite fleas. Use in wood grain bins to control the grain weevil.

1 Gallon \$2.25

You

can help win the world battle of food in your own garden, kitchen and pantry!



Vegetables and fruits grown and preserved at home help free scarce cereals for our friends overseas, help stretch meat supplies, help block inflation, help reduce your own cost of living.



get more from your

FREEDOM GARDEN
preserve more for later use

Office for Food and Feed Conservation,
U S D A

Vine Crops need organic matter

Most folks don't realize how hungry their vine crops are for organic matter. Probably it's the extra moisture they crave rather than the actual food in the organic matter.

Whatever the reason, it's a fact that melons and cukes never grow as well elsewhere as they do in shallow holes scooped out in the compost pile. That doesn't mean that you can't have these vegetables without a compost pile, but it does tell you what to do to grow them better. Plenty of moisture and rich soil are important.

Remember, too, that melons never develop good sweet flavor unless they grow entirely during warm or hot weather. If grown cool, they will probably survive, but will not develop sugar. Also, melons grown so dry that they wilt during the middle of the day cannot manufacture sugar in the leaves.

Your refrigerator . . . a garden tool?

Have you ever used your refrigerator as a garden tool? In hot weather, it's the perfect place to start certain seeds that ordinarily won't sprout except in cool weather. Take lettuce and annual larkspur for instance. These won't grow if you plant them in mid-summer heat out of doors. But mix the seed with a little sand, vermiculite, or peat moss, stand it under the ice cube compartment for a week, and it will sprout in a hurry. Then plant in the regular way and it will grow normally. The ideal temperature for germination of most cool-weather plants is 42 degrees.

Containers should be covered to hold back loss of moisture.

GARDEN-FRESH VEGETABLES THE YEAR ROUND—BY FREEZING

Freezing is one of the best, simplest and easiest methods of preserving foods. When properly handled, their natural color, flavor and nutritive values are retained to a high degree. **Essentials for success with frozen foods are:**

1. Freeze only foods of high quality. Freezing protects the original appearance and flavor of foods but does not improve quality.
2. Select varieties suitable for freezing and process them at the right stage of maturity. Generally this is

when they are ready for immediate table use.

3. Prepare and freeze vegetables as soon after they are gathered as possible. Loss of quality begins the moment of harvest.

4. Even when frozen, foods will dry out if not properly wrapped or packaged. Always use wrapping materials especially designed for this purpose.

5. Scald or blanch most vegetables before freezing. This helps to maintain the original taste, quality and appearance. **See table below.**

GUIDE FOR PREPARING VEGETABLES FOR FREEZING

VEGETABLE	HOW TO PREPARE	SCALDING PERIOD
ASPARAGUS	Cut spears in 6" lengths	3 to 4 min.
BEANS, green shell	Shell	1 min.
BEANS, lima	Shell	1 to 2 min.
BEANS, snap or stringless pole	Snip, then cut in ¾" lengths	2 min.
BEETS	Top. Cook mature beets, then rub off skins, slice.	1½ to 2½ min.
BROCCOLI	Cut head lengthwise 1" thick.	3 to 5 min.
CARROTS	Scrape, slice ¼" thick.	3 min.
CAULIFLOWER	Cut into 1" flowerets.	3 to 4 min.
EGG PLANT	Peel, slice 1/3" thick.	4 min.*
KOHLRABI	Top, peel, cut into ½" in cubes.	1 min.
PEAS	Shell, discard starchy peas.	45 to 60 sec.
SPINACH	Cut and discard thick stems.	2½ min.
SQUASH, summer	½" slices	3½ min.
SQUASH, winter	1" cubes. Cook until soft, mash.	none
CORN, on cob	Eliminate over and under-mature ears.	6 to 10½ min.
CORN, cut	Cut whole kernels from cob.	2½ min. (steam)
SWISS CHARD	Discard main stem.	2 min.
TURNIPS	Top, peel, ½" cubes.	1 min.

* Cool first in 2% citric acid solution, then cold water.

Better sauerkraut in warm weather

Folks who like kraut usually make it in the fall. But for best flavor, the scientists tell us, it ought to be made in warm weather. This means that we ought to figure on planting late cabbage as the first crop in spring, so it will mature in warm weather. Sounds strange, but here's the reason:

The flavor of sauerkraut is the product of lactic acid fermentation. The lactic acid bacteria work best at about 85 degrees thus producing a better flavor. And after your kraut is done, it should be canned or put in a cool cellar to keep. If you can't do this, better wait until later and make your kraut in a warm spot in late fall.

Good drainage . . . less drought damage

Good drainage may mean less damage by drought during the heat of summer. Here's why: In wet, soggy soil, roots don't make normal growth. They tend to grow in the upper few inches where they can reach air. The same is true where the hose is used for a light sprinkling instead of deep soaking. By providing deep drainage, so excess moisture runs off in a hurry, you can be sure your roots will follow the moisture down. Then when dry weather comes, the roots won't be near the surface. If you do install underground drainage, be sure it has an outlet, or it will collect water and make things worse.

How to be a "Glad expert"

You can become a "glad expert" quickly and easily by careful observance of a few simple points:

1. Select new, young corms of proved varieties as listed and displayed in our store.
2. Plant them when the soil is warm and the weather settled. Corms may be planted every two weeks until hot weather for a succession of bloom; or early, mid-season and late kinds may be planted at one time for a long show.
3. Fertile, light soil is best with little or no shade.
4. The soil should be kept moist to produce the biggest and best spikes of bloom.
5. Thrips may injure glads by crippling the flowers and leaves. Whitish lines followed by brown areas appear on leaves and flowers. Spraying will control them but the corms must be treated when they are stored to prevent recurrence the next year. Ask for latest information on the new chemicals available for thrips.
6. After the foliage has ripened, the corms should be dug as shown below. The small cormlets that are found at the base of the larger ones may be saved and planted. However, two or more years may be required before they reach flowering size. They should be planted separately from the large corms and given extra care to build them up.
7. Except in cases of rare kinds, it is usually better and easier to buy flowering size corms.



PLANT HIGH-CROWNED CORMS

Vigorous, young bulbs are high-crowned as shown in picture at upper left. Old, flat corms, as shown in the lower picture, are not as good. When treating bulbs for pest or disease, peel them as shown in upper right.

LIFTING AND STORING BULBS



Lift your glad corms about when the tips of leaves turn brown. Do not remove stalks while leaves are still partly green. Store in bunches in open-slatted trays and in a cool place. For overwinter storage, cover bulbs with dry peat moss or sand or vermiculite. Avoid over-heating.

BULBS FOR SPRING PLANTING

GLADIOLUS

- Bagdad**—Smoky old rose, deeper at edge of throat, lighter in throat. 6 to 8 immense blooms open at one time.
- Beacon**—Clear bright scarlet, with large creamy throat blotch. 8 to 10 medium size florets, moderately ruffled.
- Bit o' Heaven**—Very nice orange with yellow throat. Opens 9 to 12 medium sized blooms on tall, straight spike.
- Blue Beauty**—Light blue, edges of petals lined with violet-blue. Throat somewhat lighter on upper petals.
- Corona**—Creamy white with halo of rose stippling on edge of petals. Opens 6 large rather loosely attached blooms at a time.
- Dream o' Beauty**—Large rose red. A very popular shade. Tall strong grower.
- Elizabeth the Queen**—Clear mauve-ruffled flowers with dark lines in the throat. Large, fine form and opens 7 to 8 blooms at a time.
- King Lear**—Clear deep reddish purple with silver line on edge of petals. Extremely large, heavily ruffled. Early.
- Margaret Beaton**—Huge snowy white florets with a very small vermilion-pink blotch deep in throat.
- Margaret Fulton**—A beautiful large flower of salmon pink. Blooms early.
- Miss Bloomington**—Tall with large light yellow flowers of good substance.
- New Europe**—Vivid garnet red with

- small purple stripe in throat. Enormous florets, 10 open at one time.
- Oregon Gold**—A huge plant the size of Picardy. Flowers are a medium yellow with deeper throat.
- Phyllis McQuiston**—Large deep glowing shrimp pink shading a little lighter in throat; 5 or more open on long spike.
- Picardy**—Soft shrimp pink without flecking. Blotch of flesh pink shading to shrimp pink at edges. Very large.
- Rewi Fallu**—Deep blood-red very large blooms on tall straight spike. Early.
- Rosa Van Lima**—Light rose with a few lines in throat. Up to 8 or more large blooms open on tall strong spike.
- Shirley Temple**—Lovely cream with dark throat. Immense ruffled blossoms on long strong spike. Midseason.
- Snow Princess**—New fine white of good size and form. Many open blooms, perfectly placed. Stems never crook.
- Stoplight**—New brilliant red, lightly ruffled blooms, flat and wide open. Consistent performer and heat resistant.
- Vagabond Prince**—An unusual iridescent garnet brown color, lighter in upper throat and with small blotch of glowing flame scarlet on lip petal.

LILIES

Few flowers provide such regal beauty as lilies, and few are as hardy. Let us suggest the varieties that will thrive best in your garden.

CANNAS

- King Humbert**—(Orchard-flowering). Orange-scarlet with bright red markings; deep bronze foliage. 4 feet.
- Yellow King Humbert**—Beautiful yellow with red spots. 4 feet.
- President**—Immense bright red in large clusters. Green foliage. 4 feet.
- Hungaria**—Large dainty rose-pink, frequently edged cream. 4 feet.
- Wintzer's Colossal**—Largest flowering. Vivid, blazing scarlet. Green foliage.

CALADIUM

- Fancy-Leaved**—Rich ornamental leaves marked, veined and striped with white, pink and dark red.
- Elephant's Ear**—One of the largest ornamental plants for beds and borders. Huge green leaves give unusual effect.

TUBEROSES

- One of the most fragrant of all flowers. Tall spikes of white blooms.

DAHLIAS

- Avalon**—(F.D.) A fine garden variety. Profuse bloomer with rich large lemon-yellow blooms.
- California Idol**—(I.D.) A fine yellow with deep flowers. Heavy blooming with strong bush.
- Dixie's Wine Dot**—(I.D.) A beautiful variegated flower. White, speckled and splashed with wine red. Showy.
- Evelyn Chandler**—(F.D.) Golden apricot. Large flowers on long stiff stems. Excellent for cutting.
- Jane Cowl**—(I.D.) Lovely buff and old gold shading to a salmon center. One of the best for garden or cutting.
- Jersey's Beauty**—(F.D.) Glorious clear pink. One of the finest ever produced. Marvelous for bouquets.
- Michigan White**—(S.C.) A topnotch white for garden and show. Medium size flowers keep well. Long stems.
- Mrs. Geo. L. Boutellier**—(F.D.) One of

- the largest bright red. A giant flower in a brilliant color.
- Mrs. I. de Ver Warner**—(F.D.) A beautiful orchid pink. Lovely large flowers on long strong stems.
- Thomas A. Edison**—(F.D.) A fine large flower of a rich, royal purple. Outstanding.
- Minature Dahlias**—Lovely 3- to 4-in. blossoms just like the large ones in form and shape. All have good stems. A wide range of colors. Try them!
- Pompon Dahlias**—Charming "button" dahlias that require little care. Gorgeous cut flowers.

Short supplies of many Dahlia varieties this year may make it impossible for us to keep all listed varieties in stock. We will, however, have representative assortments of the best and most popular varieties available.



DAHLIA,
Formal Decorative



DAHLIA,
Miniatures



Picardy

Miss Bloomington

Dream O'Beauty

Lavender Ruffles

GLADIOLUS

How? When? HOME GARDENING GUIDE Where? Why?

GLADIOLUS

Perhaps the most useful of all summer-flowering bulbs. Excellent to fill in places where perennials have died, or where annuals have failed. When used in this way, need no care other than that given the other garden flowers. Do not use extra fertilizer; too much food promotes production of bulbils or offsets at the expense of good bloom and of a sound center bulb.

Gladiolus bulbs can be planted at any time from earliest spring until July first (if sound bulbs are on hand that late). Before planting, treat bulbs for thrips (ask for information). In light soil, plant 5" to 6" deep. This will help support the flower spike which might otherwise fall over. In heavy soil, 4" deep is correct. If planted too shallow, more bulbils will be produced, but not as good flowers. Space 6" apart in rows 24" apart, though for smaller, older sorts, 4" may be enough room to allow.

Regular spraying to control thrips is essential wherever this insect pest has been seen. If your flowers failed to develop properly last year, and if the leaves had greyish tan patches on them, this means you had thrips, and will have them again unless you treat. D.D.T. has proved a perfect control for this pest.

DAHLIAS

Perhaps our most spectacular fall flower, the Dahlia should not be planted too early, as the flowers will not do well in warm weather. Do not, however, keep

tubers later than June 1st, since by that time they usually start shriveling and may be injured if kept later. Dahlias need plenty of potash and phosphorus. If you apply the 25 to 30 lbs. of mixed fertilizers recommended for general use before planting, then additional feeding of potash and phosphorus will still be needed to produce firm tubers that will keep over winter, healthier plants and better bloom.

Leaf hoppers which carry disease and which also injure the plant by sucking juice from the leaves and stems are easily controlled by regular dusting or spraying with D.D.T. Mulching with straw, excelsior or some other airy, light material will help keep the soil moist and cool. Don't use leaves or grass clippings that mat down and pack—they hold in too much moisture.

Horticultural vermiculite is the perfect winter storage medium for dahlia tubers. Dry the freshly dug tubers in the sun for several hours. Then cover them completely with dry vermiculite. They can't freeze in it. They won't shrivel or mold.

FANCY LEAVED CALADIUMS

These spectacular foliage plants are particularly valuable because they do well in shade. Start them in a mixture of half sand and half leaf mould at a temperature of over 70 degrees. When the roots are well-developed and the shoot is beginning to show, pot up in rich soil. Set out in the garden when weather is warm and settled. Elephant ears can be planted directly in soil out of doors, but the weather must be warm and settled, otherwise they will rot.

Bulbs and tubers are a good INVESTMENT

Few garden flowers pay such high dividends as bulbs and tubers! Lasting for years . . . they return your investment over and over . . . by giving so much beauty for such little care, or cost, or effort.

TUBEROSE

This warm-weather bulb should be planted in rich soil, with 2" of soil over the tip after the weather is warm and settled. Do not try to save the bulbs: these must be grown by a specialist if they are to bloom well. Buy new bulbs each year.

CANNAS

While cannas will tolerate cool soil, they usually do not start growing until hot weather comes. If planted in round beds, you will need 37 plants for a 10 foot bed (18 plants on the outside, 12 in the second row, six for the third row and one in the center). A 7 foot bed will use 19 plants, with 12 plants on the outside row, six for the middle row and one plant in the center.

LILIES

Even the swamp lilies will not tolerate wet feet; all must have perfect drainage. Yet they like a moist, cool soil. This means that liberal quantities of old well-decayed compost is almost essential for lilies. Most varieties will not tolerate lime; your soil should have a pH of 6.5 or below if you want to grow good lilies.

The finest FLOWER SEEDS in the world!

KEY TO SYMBOLS

The symbols below the name of each flower give you the following information.

- (a)—Annual
- (b)—Biennial
- (hp)—Hardy Perennial

The Culture Number shown for each variety refers to the "How to Grow" information on page 33.

AGERATUM

(a) Culture I, 4-9"

Blue Cap—A new, very compact sort with rich blue flowers. Pkt. 15c

Blue Perfection—A deep amethyst blue. Grows to 9 inches high.

Midget Blue—Small 4-inch plants are covered with azure blooms, Pkt. 25c.

ALYSSUM

(a) Culture II (hp) VI, 4-6"

Carpet of Snow (a)—Masses of tiny pure white flowers on 4-inch plants.

Violet Queen (a)—Deep violet highlighted by white in center. Pkt. 15c.

Saxatile (hp)—Dwarf perennial. Golden flowers in earliest spring. Pkt. 15c.

ANTIRRHINUM—Snapdragon

(a) Culture I, 1½-3'

Half-Dwarf, Large flowered—Heavy spikes on 2-foot plants. Mixed colors. Pkt. 15c.

Tall Giant, Large flowered—Large 3-foot spikes with huge flowers. Pkts. 15c.

Maximum—Tallest kind. All colors. Pkt. 25c.

Super-Majestic—Semi-tall to 2 feet. Large flowers, ideal for garden. Pkt. 25c.

Tetra—Rust Resistant. Immense flowers in many fine colors. Produce many spikes. Mixed, 25c.



ASTER, Queen of the Market

ANCHUSA

(a) Culture I, 2'

Blue Bird—Bushy plants with sprays of clear blue, white-eyed flowers. Pkt. 15c.

AQUILEGIA—Columbine

(hp) Culture VI, 2½"

Mrs. Scott Elliott's Long Spurred—Large colorful blooms. Pkt. 25c.

ARABIS—Rock Cress

(hp) Culture VI, 1'

Creeping plants with small flowers in early spring. Fine for edging. Pkt. 15c.

ARCTOTIS—Blue-Eyed African Daisy

(a) Culture I or II, 3'

Grandis—Two-inch daisies of pearly white with bluish center. Pkt. 15c.

ARMERIA—Thrift

(hp) Culture VI, 1½'

Dwarf rock plants with grassy foliage and globular flowerheads. Pkt. 15c.

AUBRIETIA—Purple

(hp) Culture VI, 6"

A creeper with large colorful flowers in early spring. Ideal with bulbs. Pkt. 25c.

ASTER

(a) Culture I, v½-2½'

American Branching—Four inch double flowers of compact form. Brilliant colors.

California Giants—Large double with curled petals. 3' plants. Pkt. 15c.

ElMonte—A huge flower 8" across. Interlaced crimson petals. Pkt. 20c.

Giant Crego—Large 4-inch flowers with fluffy effect. All colors. Pkt. 15c.

Los Angeles—Huge flower with curled petals of shell pink. Feathery. Pkt. 20c.

Pompon—Early 18-inch plants. Many brilliant colors. Mixed Pkt. 20c.

Princess—Three-inch flowers are compact with a crested center. Mixed. 15c.

Queen of the Market—Early. Short plants. Compact double flowers. Mixed Pkt. 15c.

Sunshine—4" flowers. Loose row of petals, quilled center. Pkt. 25c.

BACHELOR'S BUTTONS—

Centaurea, Cornflower

(a), Culture II or IV, 3'

Blue Boy—A fine, clear blue. Flowers are large. Color intense. Pkt. 15c.

Pinkie—Lovely rose pink. Pkt. 15c.

Red Boy—Bright crimson. Pkt. 15c.

Snow Man—Snow white Pkt. 15c.

Jubilee Gem—Dwarf, 1' plant.

Large, frosty blue blooms. Pkt. 15c.

Mixed—All colors. Pkt. 15c.



ASTER, Sunshine

All Flower Seeds

10¢ PER PACKET

except where otherwise noted

BLANKET Flower—See Gaillardia

BALLOON VINE—Love in a Puff

(a) Culture I, 1½-2½'

A clean, free-growing vine with small white flowers, and balloon-like seeds.

BALSAM—Lady Slipper

(a) Culture II, 1½-2'

Mixed—Double Camellia-like flowers all summer on bushy plants. Pkt. 15c.

Bellis Perennis—see Daisy, English.

Blue Lace Flower—see *Didiscus*.

Brachycome—see Daisy, Swan River.

Burning Bush—see *Kochia*.

Butterfly Flower—see *Schizanthus*.

CALENDULA—Pot Marigold

(a) Culture II or IV, 1½'

Orange Shaggy—Large orange flowers with fringed overlapping petals.

Sunshine—Golden flowers, with drooping petals. Odorless. Pkt. 15c.

Pacific Beauty, Persimmon—Large, bright orange, double flowers. Pkt. 15c.

Sunset Shades—Large flowers in shades of yellow and orange. Pkt. 15c.

Mixed—Fine mixture of many colors and types. Good for cutting.

CALLIOPSIS—Tickseed

(a) Culture II or IV, 1-3'

Dwarf mixture—One-foot plants with many colors of yellow and red.

Tall mixture—A splendid range of colors on tall plants.

CAMPANULA—Canterbury Bells

(b) Culture VIII, 2'

Single—Large bell-shaped flowers in many colors. Graceful plants. Mixed.

Double—Fine double flowers in blue, pink and white shades. Mixed. Pkt. 15c.

Cup and Saucer—Bell-shaped. Saucer of petals at base. Mixed. Pkt. 15c.

CANDYTUFT—Iberis

(a) Culture III, 1'

White Hyacinth—Large conical spikes of snowy flowers. Fine for edging.

Umbellata mixed—Umbrella-like flower clusters. Many fine colors.



SWAN RIVER DAISY

Pinching Back Flower Plants

If sturdy, stocky plants are wanted, they will need "pinching back." When five or six pairs of leaves have formed, pinch out the top, leaving two or three pairs of leaves on the stem. New shoots will come where the leaves join the stem.

Sometimes a second pinch can be made, when these new shoots in turn have formed four or five pairs of leaves, leaving two pairs on each. Pinching increases the number of flowers, though sometimes it decreases their size.

Petunias particularly need pinching back if they are to remain short. Towards the end of the flowering season, after Petunias have grown long and lanky, they can be cut back to within an inch or two of the ground and they will throw out new growth. If given a light feeding of mixed fertilizer, these rejuvenated plants will often bloom as well as younger plants early in the season.

Removing Flowers

The gardener can lengthen the blooming season of all annuals and some perennials by removing old flowers as soon as they fade, and preventing the plant from going to seed. Delphiniums and Canterbury Bells will usually respond to this treatment by producing a second crop of flowers in fall.

Flowers in the Vegetable Garden

To have plenty of cut flowers without disturbing your flower borders, plant a

few rows of flowers along the edge of your vegetable garden. Or set them out between rows of early lettuce or radishes, where they can bloom after the vegetables have been used.

Large Flowered and Double Petunias

These should never be direct seeded outdoors, but must be started indoors. Use a flat filled with seed-starting mixture. Press soil with a brick or flat piece of wood to firm it. Wet thoroughly. Then broadcast the seed on the surface of the soil. Cover entire flat with a pane of glass and then with a sheet of newspaper. Set in a warm, dark place at 75 degrees to 85 degrees until seed germinates. Then move to a sunny window.

If flat dries out slightly before seed sprouts, water carefully with an atomizer. Transplant seedlings when second pair of leaves forms. Move into the garden after danger from frost is past.

D. D. T. and Aster Yellows

Though wilt resistant asters solved the wilt problem, Aster Yellows are still a menace. Now, with D.D.T., we can keep off the leaf hopper, the insect that carries the virus of Yellows to the Aster plant. Regular spraying or dusting with D.D.T. will leave a residue which will kill the leaf hopper when it lights on the plant and before it can stab the leaves and

pass on the virus. So if your Asters have been disappointing lately, try again, using D.D.T.

Window Boxes

There's nothing finer than window and porch boxes to make a house look "lived in" and gay.

The necessary boxes may be bought ready-made, or constructed at home. Redwood or cypress are the best lasting materials, but ordinary yellow pine will do nicely if well painted. Paint at least two coats, and use brass screws instead of nails to joint the boards.

Drainage of flower boxes is important. Use about two inches of coarse gravel at the bottom. Cover this with a layer of sand, and then with good, rich soil.

Fertilizing may be done with liquid manure, but commercial plant tablets are even better, and much easier to apply.

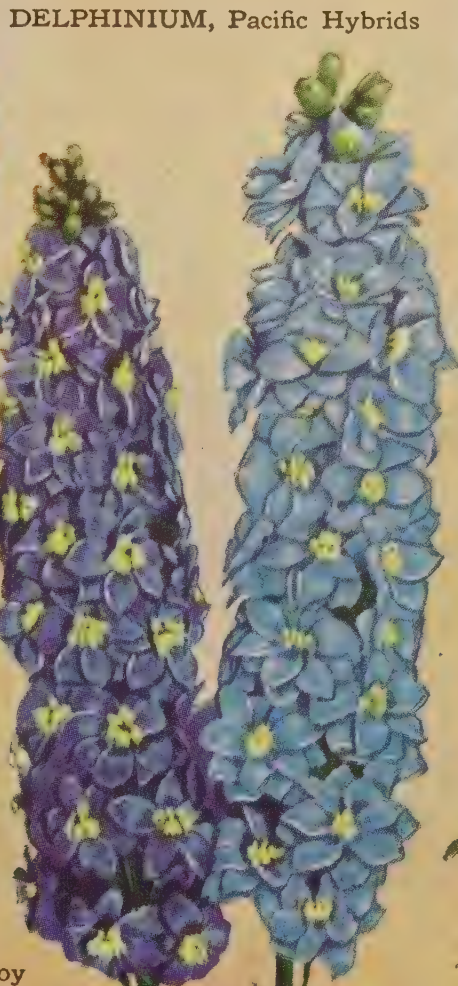
Plants suitable for window boxes are quite numerous. Among the best are petunias, nasturtium, ageratum, candytuft, dwarf marigold, cornflower, babysbreath, verbena, sweet alyssum, vinca.

For shaded boxes vinca, pansy, and English daisy will be satisfactory. If boxes are exposed to hot south sun a selection of petunia, dwarf marigold, small zinnia, and portulaca may be used.

Watering should be carefully watched as the boxes dry out very rapidly when the plants have reached a good size and the roots are filling all of the soil.



CALENDULA, Orange Shaggy



DELPHINIUM, Pacific Hybrids



GAILLARDIA PICTA, mixed



BACHELOR'S BUTTONS, Blue Boy



DIANTHUS HEDDENSIS, Tetra mixed

All Flower Seeds

10¢ PER PACKET

except where otherwise noted

CARDINAL CLIMBER—

Imp. Cypress Vine

(a) Culture III, 10-15'

Slender vine with bright green fern-like leaves. Bright red flowers. Pkt. 15c.

CARNATION

(a) Culture I or VIII, 18"

Chabaud's Giants—Large double flowers with sweet fragrance. All colors. Flower in six months. Pkt. 15c.

CASTOR BEAN—Ricinus

(a) Culture III or VII, 10'

Zanzibariensis—Tall, strong plant for bold effect. Large lobed bright green leaves. Fine for backgrounds.

CELOSIA—Cockscomb

(a) Culture I or III, 1-3'

Shades of Red—Low grower with large crested heads. Like rooster combs. Feathered—Tall, feathery heads of flowers in red and yellow shades.

CHRYSANTHEMUM

(a) Culture II or IV, 1½'

Single Painted Daisy, mixed—Showy daisy-like flowers. Rings of red, yellow, on white, red or yellow flowers.

CENTAUREA—See Bachelor's Buttons

CLARKIA

(a) Culture II or IV, 2'

Double mixed—Large double flowers in many gorgeous colors. Graceful plant. Does well in light shade.

CLEOME—Spider Plant

(a) Culture II or IV, 3-4'

Pink Queen—A tall plant with many clear pink flowers. Neat foliage. Pkt. 15c.

COCKSOMB—See Celosia

COREOPSIS

(hp) Culture VI, 2'

Sunburst—Large double flowers of rich golden color. Fine for cutting. Pkt. 15c.

COLUMBINE—See Aquilegia

CORN FLOWER—See

Bachelor's Button

COSMOS

(a) Culture II or IV, 3-4'

Dazzler—Wavy fluted petals of a velvety crimson-maroon. Pkt. 25c.

Orange Flare—Vivid orange flowers on long stems. For brilliant effect. Pkt. 15c.

Orange Ruffles—Semi-double flowers. Golden orange. Airy effect. Pkt. 25c.

Yellow Flare—Butter-yellow flowers. Similar to Orange Flare. Pkt. 15c.

Radiance—A bi-color! Beautiful, deep rose flowers have a rich crimson zone in center. Striking! Pkt. 25c.

Sensation mixed—Huge single flowers with wavy petals, many colors. Pkt. 15c.

CYNOGLOSSUM—Chinese

Forget-Me-Not

(a) Culture II, 15"

Firmament—Hundreds of tiny indigo blue flowers. Resemble Forget-me-nots. Bloom all summer. Pkt. 15c.

DAHLIA

(a) Culture I or II, 14"

Unwin's Ideal Bedding—Semi-double flowers on low bushes. Fine for beds or borders. Many colors. Pkt. 20c.

DAISY, AFRICAN—See Arctotis

DAISY, ENGLISH—Bellis

Perennis

(hp) Culture VI, 8"

Low plants with colorful double daisies in early spring. For beds, edges. Pkt. 15c.

DAISY, SWAN RIVER—

Brachycome

(a) Culture II, 10"

Mixed—Many colored small daisy-like flowers freely produced all summer. Pkt. 15c.

DELPHINIUM—Perennial

Larkspur

(hp) Culture VI, 5'

Giant Pacific Hybrids—World famous strain of immense double flowers on tall stems. Many new colors. Pkt. 35c.

Shades of Blue—A fine mixture of large showy kinds in light and dark blue. Pkt. 35c.

DIANTHUS—Pinks

(a) Culture I or VIII, 1'

Double and Single mixed—Fine mixture of colorful, sweet-scented, garden pinks.

Gaiety—Fringed petals in a wide range of flower colors and shapes. Pkt. 15c.

Heddensis—New tetraploid hybrids! Larger flowers, longer stems, better growth. Many fine colors. Pkt. 15c.

DIDISCUS—Blue Lace Flower

(a) Culture I or II, 2½'

Coeruleus—Lacy heads of lavender and blue flowers. Lovely to cut.

DIGITALIS—See Foxglove

ESCHSCHOLTZIA—California

Poppy

(a) Culture III, 1'

Large single poppy-like flowers in many showy colors. Fern-like leaves.

EVERLASTING FLOWERS

(a) Culture II, 1½-3'

Mixed—Contains such favorites as Strawflower and Globe Amaranth. Fine for dried bouquets and winter use.

FLOWERING FLAX—See Linum

EUPHORBIA—See Snow-On-

The-Mountain

FOUR O'CLOCK—Mirabilis

(a) Culture III, 2'

Bushy plants covered with flowers of red, pink, white, violet, and yellow. Flowers close in bright sun. Pkt. 15c.

FOXGLOVE—Digitalis

(b) Culture VIII, 3'

Tall spikes of lovely thimble-shaped flowers of pink rose, and purple. Blooms second year.

GAILLARDIA—Blanket Flower

(a) Culture II, (hp) VI, 2'

Single, Mixed (a)—Large daisy flowers in many brilliant colors. Pkt. 15c.

Double, Mixed (a)—Double flowers in wide range of showy colors. Pkt. 15c.

Picta (a)—Showy round flowers with tubular petals. Many brilliant colors. Pkt. 15c.

Monarch (hp)—Superb daisy type flowers in shades of red, and yellow.

GILLIFLOWER—See Stocks

GLOBE AMARANTH—See

Everlasting Flowers

GOMPHRENA—See

Everlasting Flowers

GOETIA—Satin Flower

(a) Culture I or II, 2'

Double, mixed—Azalea-like flowers of many colors on bushy plants.

GOURDS, ORNAMENTAL

(a) Culture III, 12'

Mixed—Large and small kinds that will be useful for drying and novelties.

GEUM

(hp) Culture VI, 1½'

Mrs. Bradshaw — Glowing Scarlet flowers. Bright green foliage. Pkt. 20c.



Tritoma, Pfitzers



Statice, Bonduelli



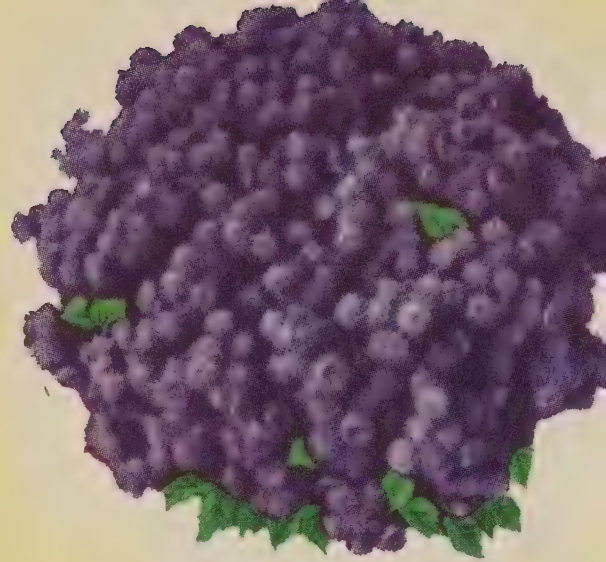
Statice, Suworowii

Flower Garden Planting Guide

KEY—For classification of flowers by purpose, location, etc. see the second column below. The meaning of the key letters in this column is as follows:

- | | |
|-----------------------------|-----------------------|
| A—For hot, dry locations | H—For winter bouquets |
| B—For a succession of bloom | I—For fragrance |
| C—For shady locations | J—For window boxes |
| D—For poor soil | K—For vines |
| E—For edging | L—For backgrounds |
| F—For the rock garden | |

	Height (inches)	Suitable for	Average Days to Germinate	Approx. Time to Bloom
AGERATUM	4-12	ABEFJ	5-10	10 wks.
ALYSSUM, Sweet	4-6	ABDEFIJ	5-10	6 wks.
ANTIRRHINUM	18-36	CIL	20-25	3 mos.
AQUILEGIA	18-30	CEF	15	3 mos.
BACHELOR BUTTON	36	ABCDEI	5-20	3 mos.
BALSAM	18-24	ADE	10-12	6 wks.
CALENDULA	18	BD	10-14	12 wks.
CAMPANULA	18-24	CFL	8-15	10 wks.
CANDYTUFT	12	BCFI	5-10	10 wks.
CHRYSANTHEMUM	24-36	ABE	5-20	10 wks.
CELOSIA	12-36	CDEH	20-25	10 wks.
COSMOS	36-48	ABCL	5-15	10 wks.
COREOPSIS	24	ABDE	10-20	4 mos.
DAHLIA, Dwarf	14	BEF	10	4 mos.
DELPHINIUM	60	L	15-21	4 mos.
DIANTHUS	12	AEFI	5-10	3 mos.
ESCHSCHOLTZIA	12	ACDF	5-12	4 mos.
FOUR O'CLOCK	24	AD	5-10	4 mos.
GAILLARDIA	24	AD	15-20	3 mos.
GODETIA	24	CD	18-20	2 mos.
GYPSOPHILA	18-36	BH	15-20	10 wks.
HELICHRYSUM	36	BH	5-10	3 mos.
HOLLYHOCK	60	BL	5-20	10 wks.
KOCHIA	30	AE	15-18	
LARKSPUR	36	BCL	15-20	12 wks.
LOBELIA	4	CEJ	10	12 wks.
MARIGOLD	6-36	ABDE	5-8	8 wks.
MIGNONETTE	12	BEI		4 mos.
MOON FLOWER	12 ft.	IK	5-8	5 mos.
MORNING GLORY	12 ft.	AK	5-8	4 mos.
NASTURTIUM	12-60	CDEFK	8-15	2-3 mos.
NICOTIANA	24-36	ACI	20-25	12 wks.
PANSY	8	CEF	10-15	12 wks.
PETUNIA	12-20	BDEFJ	18-20	12 wks.
PHLOX	12	ABCFIJ	20-25	10 wks.
PORTULACA	6	ADEFJ	18-20	6 wks.
SALVIA	36	A	15-25	4 mos.
SCABIOSA	24	AI	18-20	3 mos.
STOCKS	24	I	5-15	12 wks.
SCHIZANTHUS	36	CE	20-25	8 wks.
SWEET PEA	36	IK	15-20	12 wks.
SWEET WILLIAM	24	EF	10	12 wks.
VERBENA	8	EFJ	8-10	12 wks.
WALLFLOWER	18	I	5-12	3 mos.
ZINNIA	12-30	AEFL	5-10	8 wks.



AGERATUM,
Midget Blue



ESCHSCHOLTZIA,
California Poppy



COSMOS,
Radianc



IPOMEA,
Heavenly Blue

All Flower Seeds

10¢ PER PACKET

except where otherwise noted

GYPSOPHILA—Baby's Breath

(a) Culture I, (hp) VI, 1½-3'

Annual White (a)—Open, bell-shaped blooms on branching stems give airy touch to garden or bouquet.

Annual Pink (a)—The small flowers are a rosy pink. Like above.

Perennial white (hp)—Large loose clusters of small flowers give misty effect.

HELIANTHUS—Sunflower

(a) Culture II, 6'

Sun Gold—Large double flowers of a brilliant golden yellow. Pkt. 15c.

HIBISCUS—Rose Mallow

(hp) Culture VI, 4'

Giant mixed—Huge bell-shaped flowers in white, pink, red. Tall plants for damp spots. Pkt. 15c.

HUNNEMANNIA—Mexican

Tulip Poppy

(a) Culture III, 1½'

Sunlite—Soft yellow double poppy type flower. Bluish fine cut leaves. Pkt. 15c.

HOLLYHOCK

(hp) Culture VI or VIII, 5'

Double mixed—Large double flowers on tall spikes. Bloom in midsummer. Excellent backgrounds. Pkt. 15c.

KOCHIA—Burning Bush or

Summer Cypress

(a) Culture III, 2½'

Compact pyramid Needs no trimming. Bright green foliage makes neat, quick hedge. Turns bright red in fall.

LARKSPUR—Annual

Delphinium

(a) Culture II or IV, 3'

Blue Spire—Tall spikes of large double flowers in a lovely violet blue. Pkt. 15c.

White King—Pure glistening white spikes. Tall and stately. Pkt. 15c.

Pink Perfection—Lively light salmon pink Glorious when cut. Pkt. 15c.

Ruby—A genuine ruby red. A bright color in garden or bouquet. Pkt. 15c.

Giant Imperial mixed—A fine mixture of the above kinds and others. Pkt. 15c.

LATHYRUS LATIFOLIUS—See

Perennial Sweet Pea

LAVATERA—Annual Mallow

(a) Culture II, 2-3'

Loveliness—Large bowl shaped rosy pink flowers all summer. Attractive bronzy foliage. Pkt. 15c.

LINUM—Flowering Flax

(a) Culture III, (hp), VI, 1-2'

Scarlet (a)—Bright red flowers in a constant succession all summer.

Perennial Blue (hp)—Low bushy plant blooming from spring to mid-summer. Small, clear blue flowers in profusion. Packet, 25c.

LOBELIA

(a) Culture I or V, 4"

Crystal Palace—Compact border plant with myriads of tiny bright blue flowers. For all low use. Pkt. 25c.

LUPINE

(hp) Culture III or VII, 3'

Russell's Mixed—Finest of all the lupines! Brilliant colors in long, strong spikes of pea-shaped flowers Pkt. 25c.

MALLOW, ANNUAL—See Lavatera

MALLOW, ROSE—See Hibiscus

MARIGOLDS

(a) Culture I or II,

Tall Types 1½-3'

Burpee Gold—Large carnation-like flowers in bright orange. Odorless foliage. Pkt. 15c.

Guinea Gold—Large round flowers in a rich gold Very popular.

Yellow Supreme—Light yellow, large flowers of carnation form. Pkt. 15c.

Sunset Giants—Huge dahlia-flowered strain. Lemon and gold. Pkt. 15c.

Crown of Gold—Golden flowers with crested center and broad collar of petals. Odorless foliage. Pkt. 15c.

Double Dwarf Types ½-1'

Melody—Foot high plants with loads of orange ball-shaped flowers. Pkt. 15c.

Spry—Compact plants with showy yellow flowers bordered with mahogany. Pkt. 15c.

Sunkist—Compact plants with masses of golden orange blooms. Pkt. 15c.

Scarlet Glow—Compact, with bright red, 2" blooms. Reddest of all. Pkt. 15c.

Double French Hybrids mixed.— Compact plants with flowers in yellow, orange, mahogany, and bronze. Pkt. 15c.

Single Dwarf Types, 1-1½'

Flash—Plants have many 1¼" flowers in tangerine and red shades. Grows about 18". Pkt. 25c.

Naughty Marietta—Open 2½" flowers are rich gold with maroon at base of petals. Splendid for edging. Pkt. 25c.

Red Head—New! 1948 All-America Award. Crested center of gold edged maroon, petals deep changeable red. Pkt. 25c.

Royal Scot—Alternating stripes of red and gold. Very different. Pkt. 15c.

MIGNONETTE—Reseda

(a) Culture III, 1'

Low grower with tiny, white blooms that are very sweet scented.

MORNING GLORY—Ipomoea

(a) Culture III, V or VII, 12'

Heavenly Blue—Sky-blue flowers on a tall, neat climber. Flowers close in bright sun. Exquisite on fences. Pkt. 15c.

Pearly Gates—A shining white form of Heavenly Blue. Pkt. 25c.

Scarlett O'Hara—Large velvety scarlet flowers. Very showy. Pkt. 20c.

Mixed—Many lovely shades.

Moss Rose—See Portulaca

Mourning Bride—See Scabiosa

NASTURTIUM

(a) Culture III or V

Dwarf or Bush Kinds 1'

Golden Globe—Semi-double flowers of bright gold. Pkt. 15c.

Scarlet Globe—Fiery scarlet double flowers. Pkt. 15c.

Mahogany Gem—Deep velvet mahogany red double flowers. Pkt. 15c.

Gem Mixed—All colors. Pkt. 15c.

Single Mixed—Complete mixture of all colors in the well-known single type.

Tall or Vine Kinds 3-10'

Golden Gleam—Large golden flowers. Double and fragrant. Pkt. 15c.

Scarlet Gleam—Fiery orange scarlet flowers. Double and fragrant. Pkt. 15c.

Salmon Gleam—Delicate golden salmon double flowers. Pkt. 15c.

Glorious Gleam—A mixture of all the lovely colors of the Gleam series. Pkt. 15c.

Tall Single Mixed—The old single type in the tall growers. All colors.

NEMOPHILA—Baby Blue Eyes

(a) Culture II, 6"

Many cup-shaped sky-blue flowers on low spreading plant. Pkt. 15c.

NICOTIANA—Flowering Tobacco

(a) Culture I or II, 2-3'

Long-tube starry flowers. Fragrant at night. White or light pink mixed.

PAINTED TONGUE—See Salpiglossis



EVERLASTING FLOWER



HIBISCUS, Rose Mallow



LAVATERA, Loveliness

HOW TO GROW

all flowers listed in this Garden Annual

The numbers, I to VIII, found with every flower listing refer to the following culture notes which give directions for growing all of the flowers we list.

In general, these elements are necessary for best results with all flowers: Loose, well-drained soil, a plentiful supply of organic matter, a good supply of plant food from a good mixed fertilizer, adequate water to keep soil moist and care to remove weeds and check pests.

One of the important problems in the garden is that of maintaining a continuous show of bloom. This calls for the use of several different types of annuals, such as those that must be planted early to grow in cool weather (**Culture IV**) and those which bloom later in summer heat (**Culture I and II**). If some of the cool-weather annuals from **Group IV** are sown in mid-summer and kept well watered, they will grow slowly until the cooler days of fall start them into more active growth. These will produce late flowers. Quick-growing annuals from **Group II** may also be sown at intervals for a succession of bloom during the summer.

One way to lengthen the blooming period of annuals is to cut off all flowers as soon as they fade. Annuals complete their life span when seed is formed and frequently stop flowering as soon as the seed ripens. By preventing the seed from forming through removal of all old flowers, the plants are kept growing and blooming.

Culture I

These flowers need a long season and must be started indoors if a full blooming period is to had. If early bloom is not important, they will bloom later in the summer when sown directly in the garden. Some gardeners sow both ways to obtain a succession of flowers.

When starting seedlings indoors, select a place with plenty of light. North or shaded windows may be too dark for best results. Cold frames are generally very good. The seed is planted in small boxes (or flats) that have good drainage and will fit the space you are going to use. Fill them with a mixture of 1/3 good soil, 1/3 sand and 1/3 humus such as peat. Press the soil down firmly and make small rows with the edge of a ruler or lath and slowly shake the seed from the packet into the rows. Sift a light covering of the soil mixture over the seed and moisten with a fine spray. Keep soil moist until the seeds have sprouted. Very fine seed such as that of petunias should be dusted carefully onto a smooth soil surface and covered with a pane of glass. Shade it with newspaper until the seeds sprout. These are best watered by setting the flat in a pan of water until the soil has become thoroughly dampened all the

way through. When the seedlings have formed the second true leaves, transplant them into other flats so the plants are about 2½ inches apart. This will give them room to grow to good size before being set out. Expose gradually to outside conditions and plant outside after the weather is warm and settled. When sown directly outdoors, follow directions under **Culture II**.

Culture II

These are the quicker-growing annuals that can be sown directly in the garden and will bloom in time to make a good display for most of the summer. If wanted especially early, they should be started as directed under **Culture I**.

Some flower seedlings are rather delicate. Extra care in preparing the seed bed will pay dividends in better plants. Prepare soil with a liberal amount of mixed fertilizer and organic matter and dig it in. Rake the surface until it is smooth and pulverized. Sow the seed at a depth equal to three times the diameter of the seed. Fine seed can be spread on the surface and pressed in without covering.

Keep soil moist by light spraying until the seedlings have formed the first true leaves. When they are large enough to handle, they may be transplanted to other parts of the garden.

Culture III

These flowers do not transplant well. They should be planted where they are to bloom.

Sow as soon as the weather begins to warm in the spring. **Otherwise the culture is the same as II.** Sow seed thinly or remove the smaller plants after they are up. These can be handled as pot-grown plants as in **Culture VII**.

Culture IV

These flowers are unusually hardy annuals that can withstand very cool weather. They are often sown late in fall so they can start growing the first warm days of spring. If not sown in fall, they should be planted as early in the spring as possible. Fall sowing gets the seeding job out of the way before the spring rush.

Culture V

These flowers, while garden subjects, are also useful for winter-flowering house plants. **For garden use, handle as in Culture II.** For winter flowering indoors, plant fairly late in the season and transplant into small pots as soon as they are large enough. Keep moving them to larger pots as roots fill the soil until they are finally in six-inch pots. Annuals in pots should have at least six hours of direct sunlight daily if they are to flower.

Culture VI

Perennials can be seeded at almost any time of the year. Best periods are early in the spring or in early summer when the rush of spring work is over. A cold frame or sheltered bed which can be shaded from the direct sun is best. Prepare soil thoroughly with plenty of organic matter. A loose, friable soil will produce a thick mat of roots so that the seedlings will transplant more easily. Perennial seedlings are rather weak growers needing extra care. In covering the drills in which the seeds are sown, use either pure, clean sand or a mixture of half sand and half peat. This prevents packing of the soil over the seeds. Always water with a fine spray.

As soon as the second leaves form, seedlings may be transplanted into their permanent position. Or, if more convenient, they may be left in the seed bed until the following spring. Under this



culture, only a few species will bloom the first year and they will not produce normal flowers until the following year. Planting earlier does increase the chances for flowers the first year. But, if it is more convenient, **Culture I may be used.** Delphinium seed is often started in August to take advantage of the cooler nights for the seed will not grow when the soil temperature is above 77 degrees.

Culture VII

These varieties need a longer growing season than can be given them outdoors. And because they do not transplant well, they must be started in pots and set out without disturbing the roots. **Otherwise Culture is the same I.** The use of plant bands allows you to set the seedlings out without disturbing the roots. The bands soon rot away and the seedlings will grow as though started in the garden.

If clay pots are used, the excessive drying can be avoided by placing the pots in a flat and filling the space between them with damp peat or vermiculite. Be sure to keep this material moist or it will draw moisture from the pots.

Culture VIII

These flowers are biennials. They make a leafy growth the first year but do not flower. The leafy growth of the first year forms food for blooming the following year. The flowers appear the second year and then the plant dies.

This means that a continuous show from biennials must be provided by starting new plants every year to replace those that are flowering. Biennials are handled in the same way as perennials except that they are started early in the spring to allow the plant to store as much food as possible for the next year's bloom.

Many gardeners start biennials in the vegetable garden or special starting bed and then transplant the ones needed to the flower garden the following spring. During winter, biennials should be given the same treatment as perennials.

Pansies are tender perennials that are treated as annuals or biennials. When grown as annuals, they should be started indoors about six weeks before time for planting out in early spring. When grown as biennials, the seed is started in late summer and the plants carried over winter in protected spots where extremes of temperature and moisture are avoided. Mulching or the use of frames may be necessary in your particular garden. Pansies do best under conditions of constant, moderate moisture, partial shade and a humus-rich soil. Pinching off old flowers will prolong the flowering season.



HOLLYHOCK, Double

ANTIRRHINUM, Tetra-Snapdragon



SCABIOSA, Blue Moon



ZINNIA, Will Rogers

Flowers for Shady Locations

Most annuals need plenty of sunlight, but there are a few which do fairly well in the shade, or with partial sun. The following are worth a trial in shady spots:

Bachelor Button	Candytuft
Nasturtium	Larkspur
Pansy	Lupine
Clarkia	Godetia
Pansy	Lobelia
Coreopsis	English Daisy
Lupine	Viola
Columbine	

In the **Vine group**, those which often prosper in fairly shady places are **Cardinal Climber**, and **Morning Glory**.

Flowers for Poor Soil

Of course, the right answer to poor soil conditions is "improve the soil!" But if you can't or don't want to do this, you can usually get fairly good results in poor soil with these:

Balsam	Marigold
California Poppy	Nasturtium
Zinnia	Petunia
Gaillardia	Portulaca
Godetia	Four O'Clock

Easiest Annuals to Grow

We are often asked to recommend annuals for growing without much care, particularly around summer cottages used only on week ends, or where the soil is poor. We suggest **Calendula**, **Gaillardia**, **Marigold**, **Petunia**, **annual Phlox**, **Scabiosa**, **Verbena** and **Zinnia**. These usually bloom profusely without care or extra watering, though some water applied when seed is sown will often insure germination.

For Successive Sowings

Some of the annuals which come into bloom quickly keep blooming for only a little while. If you want them in bloom through the season, make several successive sowings at two to four week intervals. Flowers in this class include:

Calliopsis	Gypsophila
Candytuft	Larkspur
Bachelor Button	Mignonette
Sweet Alyssum	Poppy

Annuals for Fall Bloom

While Petunias can be cut back to force new bloom, others can be replaced by sowing new seed late in June among the old plants. Try **Calendula**, **Candytuft**, **Eschscholtzia**, **annual Phlox**, **Sweet Alyssum**, and **small flowered Zinnias** for this purpose. These late-sown annuals will need extra watering to germinate and grow. The Alyssum and Candytuft often keep flowering along with the hardy Mums.

Annuals for Edging

Low growing annuals planted at the edge of a garden make it look neat and finished. The best plants for this purpose are **Sweet Alyssum**, **Ageratum**, **Lobelia**, **dwarf Marigold**, **Nasturtium**, **dwarf Petunias**, and **Zinnia linearis** or **mexicana**. Edging annuals should be

pinched back once to keep them especially low.

Annuals for Fragrance

We are often asked, "What annuals are really fragrant?" We recommend **Alyssum**, **Candytuft**, **Carnation**, **Mignonette**, **Gleam Nasturtiums**, **Petunia**, **Scabiosa**, **Stocks**, **Sweet Peas** and **Wallflower**.

Flowers for Hot, Dry Locations

In spots where the sun beats down mercilessly all day long, many flowers can not prosper. But some of the annuals can do well, even in these difficult locations. Here's a good list:

Sweet Alyssum	Petunia
Ageratum	Phlox, Annual
Bachelor Button	Poppy, California
Cosmos	Portulaca
Dianthus	Scabiosa
Dimorphotheca	Zinnia
Gaillardia	Four O'clock
Marigold	Salvia

Perennials for hot locations are less plentiful, but you can usually do well with **Babysbreath**, **Perennial Asters**, **Sedum Acre**, **Statice**, and **Blanket Flower** (Gaillardia).

Flowers for Bouquets

Most of the garden flowers can be used in bouquets of some sort. However, some are so small that special miniature vases must be used. Others will need low saucers and must be used in special places. The following list includes the best ones for most uses in bouquets and flower arrangements:

Aster	Gypsophila
Bachelor Button	Larkspur
Calendula	Lupine
Chrysanthemum	Marigolds
Clarkia	Phlox
Coreopsis	Salpiglossis
Cosmos	Scabiosa
Delphinium	Statice
Gaillardia	Sweet Peas
Godetia	Zinnias

Flowers for Low Bowls

Many excellent flowers are neglected because of the stems are so short that they need low bowls or saucers to display. Or they may be floated on deeper containers. While they are a little hard to arrange, they are very fine for use on dinner tables, buffets, and in front of mirrors. They are beautiful and still do not cut off or hide any of the other decorations. Some of the best for this type of use are:

Carnation	Dianthus
Nasturtium	Lavatera
Petunia	Mignonette
Candytuft	Nemophila
Dwarf Marigold	Verbena
Dwarf Zinnia	Viola
Phlox	Pansy
English Daisy	

For Winter Bouquets

Several flowers can be dried and used for winter decorations. The everlastings are best known but **Statice** and **Gypsophila** are also fine. **Celosia** will last a long time but is not as showy as the others.

HOME GARDENING GUIDE

A PROGRAM FOR GARDEN SANITATION

About 75% of the work and much of the damage caused by insects can be eliminated by a simple, regular program of sanitation. Preventive dusting or spraying is much easier than waging a losing battle against bugs when they appear. Usually, less than 30 minutes a week should be needed for a regular sanitation program for both flowers and vegetables.

Along with a regular program of insect control, plan on destroying weeds along the edges of your garden, the places where insects hide during the winter. If possible, control the weeds for a distance of at least 25 feet on all sides of the garden. Not only will this eliminate insect hiding places, but it will reduce the number of weed seeds that might otherwise blow onto your garden.

This program involves two new chemicals. Apply a 5% dust of D.D.T. to the grass and weeds about every three weeks, so that most insects that might otherwise move into the garden will be killed. So will mosquitoes, chiggers and harvest mites that can make gardening so unpleasant.

The regular use of 2,4-D will keep down all of the broadleaved weeds, without danger of poisoning animals, children or of damaging equipment with corrosive sprays. In using 2,4-D around flowers and vegetables, however, be extremely careful not to allow the spray to drift onto these, as most garden plants are as easy to kill with this material as the weeds.

Any spray that will kill grasses will also hurt the soil so that it

can't be used for growing plants for several years. If this is not objectionable, use one of the non-selective weed killers—and clear the ground of all vegetation (as on driveways, tennis courts, etc.) Ask us for details.

New ideas on garden layout

D.D.T. for pest control promises to change the whole scheme of garden layout. We can now divide vegetables into two groups—one to be dusted with D.D.T. and the other to be left undusted. The D.D.T. plot should be on the lee side so that wind will not drift from it into those which should not be dusted.

This puts the following vegetables on the side away from the wind—bush and pole beans, limas, beets unless you want to eat the thinnings as greens, carrots, sweet corn, eggplant, okra, onions, parsnips, peas, peppers, radishes, tomatoes and turnips (again, only if you don't eat the greens).

Facing the wind should be the vegetables not to be dusted, including Brussels sprouts, cauliflower, Chinese cabbage, collards, cucumber, endive, kale, kohlrabi, lettuce, muskmelon, parsley, pumpkin, rhubarb, spinach, squash, Swiss chard and watermelon. In general, rows get better distribution of sunshine if they run north and south. If this arrangement isn't necessary, better put corn and other tall crops to the north of the shorter crops. Sweet corn should not be planted in one or two long rows, but in several short rows.



ASTER, Wilt-resistant



SNAPDRAGON (Antirrhinum), Mixed



AQUILEGIA (Columbine), Mixed



PYRETHRUM, Painted Daisy

PINKS (Dianthus), Single Mixed

QUICK-FIGURING CHART FOR DILUTIONS

• With Liquid Materials •

For Strength	Use to make 1 qt.	Use to make 1 gal.	Use to make 5 gals.	Use to make 25 gals.
1-100	2½ tspns.	10 tspns.	12 tblspns.	1 qt.
1-200	1 tspn.	5 tspns.	6¼ tblspns.	1 pt.
1-400	½ tspn.	2½ tspns.	3 tblspns.	8 oz.
1-500	½ tspn.	2 tspns.	2½ tblspns.	6 oz.
1-600	1-3 tspn.	1¾ tspns.	2 tblspns.	5 oz.
1-800	¼ tspn.	1¼ tspns.	6 tspns.	4 oz.
1-1000	¼ tspn.	1 tspn.	5 tspns.	3 oz.

4 tspns. equal 1 tblspn.; 2 tblspn. equal 1 oz.; 16 ozs. equal 1 pt.

• With Powdered Materials •

Rate per 100 gals.	Use to make 1 qt.	Use to make 1 gal.	Use to make 5 gals.	Use to make 25 gals.
1 lb.	1 tspn.	1 tblspn.	4 tblspns.	4 oz.
2 lb.	1¾ tspns.	1¾ tblspns.	8 tblspns.	12 oz.
3 lb.	2-2-3 tspns.	2-2-3 tblspns.	2½ oz.	1¼ lb.
5 lb.	4½ tspns.	4½ tblspns.	4 oz.	1½ lb.
6 lb.	5-1-3 tspns.	5-1-3 tblspns.	4¾ oz.	8 oz.

Measures are for material weighing the same as flour. For heavier materials use less. Weigh if possible. Strain before using.



All Flower Seeds

10¢ PER PACKET

except where otherwise noted

PANSY

(a) Culture I, II or VIII, 8"

Swiss Giants—Large flowering strain with fine range of gorgeous colors. Best of the improved pansies. Pkt. 50c.

TUFTED PANSY—See Viola

PERIWINKLE—See Vinca

PETUNIA

(a) Culture I or IV

Small Flowered, 10-14"

Balcony—Trailing kinds for use in window boxes and bedding. White, red, rose, or blue. Each, Pkt. 20c.

Blue Bee—A lovely violet blue. Pkt. 15c.

Cheerful—Clear salmon pink with rose veining in throat. Compact. Pkt. 25c.

English Violet—A fine purple-violet color. Spreading plant. Pkt. 20c.

Flaming Velvet—A velvety blood red. Best of its color. Pkt. 20c.

Glow—Rich carmine red flowers on a compact plant. Brilliant. Pkt. 25c.

Martha Washington—Ruffled flowers of pale pink, violet throat. Pkt. 25c.

Rose of Heaven—Best of the rose colored strains made famous by Rosy Morn. Color is slightly deeper and more uniform. Compact. Pkt. 15c.

Silver Medal—New 1949 All-American Award. A lovely salmon. Good size flowers on compact plants. Pkt. 50c.

Large Flowered, 12-20"

America—Double carnation-like flowers of a deep rose pink. Pkt. \$1.00.

Burgundy—Huge single flowers of a rich wine red, white throat. Pkt. 25c.

Colossal Shades of Rose—1948 All-American. Large plants have huge flowers of light and deep pink shades. Very double with many frilled and fringed petals. Pkt. \$1.00.

Glamour—Huge ruffled blooms of a luscious salmon. Blooms early. Pkt. 25c.

Giants of California—Huge flowers of many fine pastel tints. Pkt. 25c.

Little Giants mixed—Compact plants with medium flowers in many new colors and shapes. Pkt. 20c.

Snow Storm—Large plain glistening white flowers with creamy shading in throat. Very beautiful. Pkt. 50c.

Theodosia—Large ruffled flowers of deep rose pink with golden throat. Very showy and lovely. Pkt. 25c.

PHLOX

(a) Culture II, 8-12"

Lovely clusters of showy flowers on low plants from early spring on. Easily grown. Many splendid colors.

Separate colors, each, pkt. 25c.

Mixed. Pkt. 15c.

PINKS—See Dianthus

PINCUSHION FLOWER—See Scabiosa

POPPY

(a) Culture IV, (hp) VI, 1½-3'

Iceland mixed—Excellent perennial for borders and rock gardens. Large colorful flowers from ferny foliage. Pkt. 15c.

Oriental Scarlet—Huge red blooms in early summer from perennial root. Useful for bold color. Pkt. 15c.

Shirley, mixed—The easily grown, lovely annual poppy. Many bright colors. Grows easily and self-sows.

POPPY, CALIFORNIA—See

Eschscholtzia

POPPY, MEXICAN TULIP—See

Hunnemannia

PORTULACA—Moss Rose

(a) Culture, III or IV, 6"

Jewel—Huge crimson flowers. Much larger than old kinds. Pkt. 25c.

Single, mixed—Many brilliant colors.

Double, mixed—All double. Pkt. 15c.

POT MARIGOLD—See

Calendula

RICINUS—See Castor Bean

SALVIA—Flowering Sage

(a) Culture I, 2-3'

America or Globe of Fire—The well-known Scarlet Sage that is a blaze of vivid scarlet in summer. Pkt. 25c.

Blue Bedder—Deep medium blue. Slender plant for airy effect. Use to lighten up thick heavy plantings. Pkt. 50c.

SALPIGLOSSIS—Painted Tongue

(a) Culture III, 30"

Mixed—Large petunia-like flowers of rich velvety colors, veined with gold.

SCABIOSA—Mourning Bride, Pincushion Flower

(a) Culture III or IV, 2'

Blue Moon—Large double flowers of deep lavender blue. Pkt. 15c.

Peace—Round double flowers of pure white. Fine for cutting. Pkt. 15c.

Rosette—Beautiful deep rose flowers with salmon shadings. Pkt. 15c.

Imperial Giants, mixed—Large globe-shaped flowers in a wide range of red, white, coral, rose and blue. Pkt. 15c.

Mixed—All colors of the old type.

SATIN FLOWER—See Godetia

SCARLET FLAX—See Linum

SCARLET SAGE—See Salvia

SCHIZANTHUS—Butterfly-Flower

(a) Culture II or IV, 1½'

Mixed—Small flowers shaped like multi-colored butterflies. Delicate cut leaves. Free flowering. Pkt. 25c.

SEA LAVENDER—Statice

(a) Culture I, 2'

Bonduelli—Bright yellow flowers. Useful when dried. Pkt. 20c.

Mixed—Small tubular flowers in branching spikes. Many colors. Pkt. 20c.

Suworowii—Bright rose flowers crowded on slender spikes. Pkt. 20c.

SPIDER PLANT—See Cleome

STRAW FLOWER—See

Everlasting Flowers

SHASTA DAISY

(hp) Culture VI, 2'

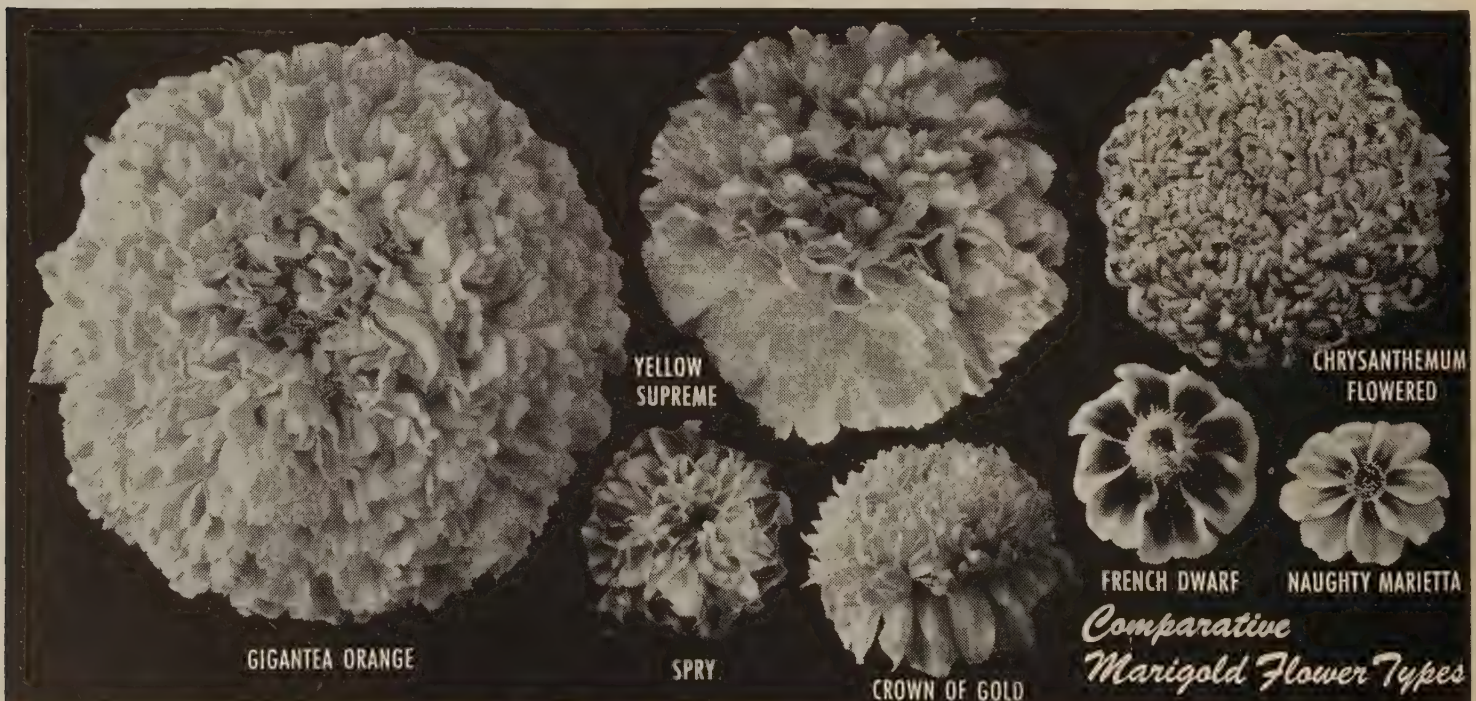
Alaska—Largest of the Shasta strains. Big, white flowers with yellow centers.

SNAP DRAGON—See Antirrhinum

SNOW-ON-THE-MOUNTAIN—Euphorbia

(a) Culture III, 2'

Bright green foliage edged with white. Effective for edging or contrast. Pkt. 15c.



STOCKS—Gilliflower

(a) Culture I or IV, 1-2'

Giant Imperial—Excellent double flowers on tall stems. Many bright colors. Pkt. 25c.

Beauty of Nice—Branching, with large double, fragrant flowers. Pkt. 15c.

Dwarf Ten Weeks—Low growing with strong spikes. Many fine colors.

SWEET PEAS

(a) Culture III, 3'

Early Spencer—Earliest of the many strains. Large colorful, fragrant blossoms. By variety or mixed. Pkt. 15c.

Late Spencer—Large fine flowers that flower in early summer. The standard ones for outdoor use. By colors or mixed. Pkt. 15c.

Ruffled Spencer—Wavy and ruffled petals give fine effect. Many fine colors or mixed. Pkt. 15c.

Perennial Sweet Pea—Large vine and large flowers. Useful on trellis or fence. Not fragrant. Blooms all season. New stems yearly. Pkt. 15c.

SWEET SULTAN

(a) Culture II or IV, 2½'

Mixed—Lovely colorful thistle shaped flowers. Easily grown.

SWEET WILLIAM—Dianthus Barbatus

(hp) Culture VI, 1½-2'

Double—Double flowers crowd the heavy heads of many colors. Pkt. 15c.
Single—Lovely single pinks in large flat clusters. Fine for cutting.

THRIFT—See *Armeria*

TICKSEED—See *Calliopsis*

TITHONIA—Golden Flower of the Incas

(a) Culture I, 6'

Fireball—Single dahlia-like scarlet flowers on tall plants. Pkt. 15c.

TRITOMA—Red Hot Poker

(p) Culture VI, 3-4'

Pfitzer's Hybrids—Narrow tubular flower on tall spikes, orange red. Graceful grassy foliage. Not perennial under some conditions. Pkt. 15c.

VERBENA

(a) Culture I, 8"

Lavender Glory—Lavender with white eye. Large clusters. Fragrant. Pkt. 15c.

Mammoth White—Large heads of pure white. Useful for contrast. Fragrant. Pkt. 25c.

Scarlet—Flaming scarlet heads. Brilliant in beds. Pkt. 15c.

Blue Shades—Medium and dark blues in mammoth type. Pkt. 15c.

Mixed—Huge flower clusters, all colors. Ideal for beds and borders. Pkt. 15c.

VINCA—Periwinkle

(a) Culture III, 15"

Mixed—Colorful starry flowers on glossy-leaved, bushy plants. Does well in shade. Pkt. 15c.

VIOLA—Tufted Pansies

(hp) Culture VI, 6'

Mixed—Miniature pansies from neat plants. Flower all season. Many showy colors mixed. Pkt. 20c.

WALLFLOWER

(a) Culture I or V, 1½'

Mixed—Blood-red and yellow flowers. Resemble single stocks. Early and fragrant.

WILD FLOWER MIXTURE

(a) Culture II or III ½-3'

Old fashioned flowers in a fine mixture for all season flowering. Sow thinly and enjoy continuous flowers and delightful surprises. These are not wild flowers of the fields but a selection of garden flowers that gives a "wild" garden look when planted in a border. A good way to get acquainted with some of the unusual kinds of garden flowers.

ZINNIA

(a) Culture I or II

Small Types, 12-18"

Black Ruby—Compact, round little flowers of a deep velvety maroon. Lilliput type. Pkt. 15c.

Red Riding Hood—Deep scarlet flowers 1" across. Free flowering. Fine border plant of Lilliput type.

Lilliput pastels—Lovely soft colors in the miniature strain. Fine for borders or small bouquets.

Linearis—Single daisy-like type with small flowers in orange colors. Pkt. 15c.

Mexicana—Single and double flowers in varied and variegated colors.

Navajo mixed—Resemble Gaillardias in shape. Many colors in showy mixture. Medium size plants and flowers. Pkt. 15c.

Pumila Sunshine Tints—Dwarf plants with medium flowers in a wide range of soft colors. Pkt. 15c.

Scabious Flowered—Medium size flowers on a semi-tall plant. Resembles *Scabiosa* in shape. Bright colors mixed. Pkt. 15c.

Tom Thumb mixed—Lilliput type flowers on a very dwarf plant. For low borders and miniature displays. Pkt. 15c.

Fantasy—Medium tall plants with medium size flowers having shaggy petals.

Melody (orchid lavender), **Star Dust** (golden), **White Light** (white), **Wild-fire** (scarlet), and **mixed**. Pkt. 15c.

Large Types, 2-2½'

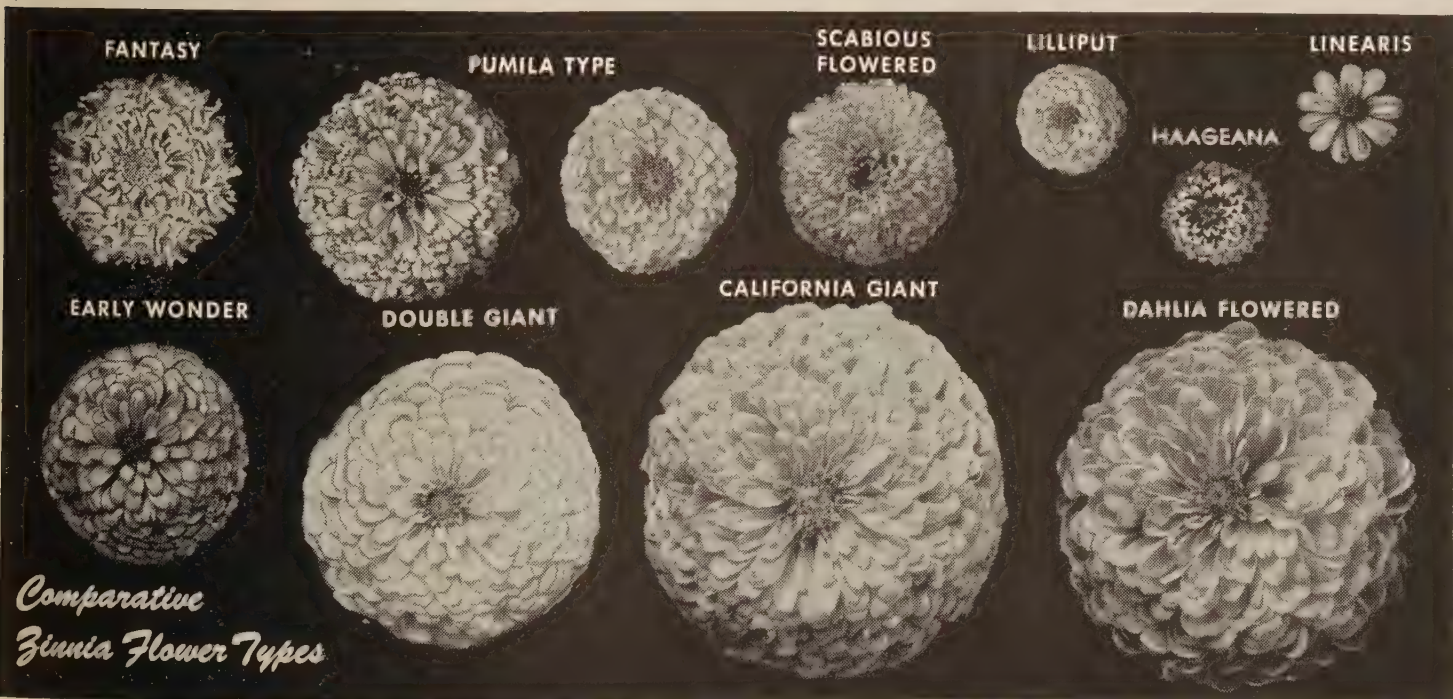
Crown of Gold—Lovely golden shades with deep golden base to the petals. A large type resembling California Giants. Pkt. 15c.

Super Crown of Gold Pastels—New, improved, with many pastel colors overlying the golden base. Pkt. 15c.

Dahlia Flowered mixed—Huge flowers in a bewildering range of bright and pastel colors. Pkt. 15c.

Giants of California, mixed—Mammoth flowers in many striking colors. Largest of all. Pkt. 15c.

Will Rogers—Dahlia type with deep scarlet color. A striking and popular variety. Pkt. 15c.



COMPOSTING

The compost heap is a "must" for the permanent garden. Select a spot behind a shed or otherwise hidden (if your garden is in the open) and spread out your garden wastes over this area in a layer six inches deep. Use weeds, old vegetable and flower plants, vegetable waste from the kitchen and lawn clippings. Trimmings from lawn edging are particularly valuable.

On each six inch layer, sprinkle a little lime and a liberal amount of a good mixed fertilizer. The fertilizer will feed the bacteria that cause the vegetable wastes to decay. Then apply a layer of good garden soil over the lime and fertilizer. Repeat until the pile is two feet high. Wet down if rain doesn't fall.

In six months all weed seeds and other vegetable matter will be broken down by the bacteria into a rich home made "manure" that will go a long ways towards making yours a perfect soil.

You need not waste the space used for the heap, since cucumbers, melons and squashes never grow as well as when planted in shallow depressions in the compost heap.

"Long-pull" Fertilizers

It is profitable to apply long-lasting fertilizer to the permanent garden.

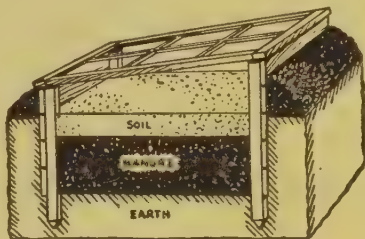
For instance, superphosphate or bone meal may last for ten or fifteen years before they are fully consumed. Also, potash such as muriate or sulfate of potash lasts a long time without washing away. Use fertilizers liberally on the permanent garden-it pays.

Lime is also a "long-pull" fertilizer if it is applied in the form of crushed or pulverized limestone and not as the more soluble slaked or quick limes. Any limestone used should be especially prepared for agricultural use, as other kinds may be too coarse to do any good.

Hotbeds and Cold Frames

Normally, these do not pay if used only for growing seedlings, but the advanced gardener will find them useful for protecting plants in fall, for storing winter vegetables or for growing lettuce and radishes until long after they are available in the open garden.

These should be located on the south side of a hedge, fence or building to break the wind, and must have at least six hours of direct sunshine during the day.



Pit should be 24" deep. Fill to top with fresh strawy horse manure and press down six inches. Set frame over manure and fill around outside and inside to level of ground. Add three inches of sifted soil inside frame. Heap leaves or straw around outside to conserve heat.

If manure is not available, dried leaves or chopped straw may be used by adding a handful of ammonium nitrate or ammonium sulfate to each bushel of leaves. This will not, however generate as high a heat as manure.

As soon as frame is in place, water well, insert thermometer in soil and cover with sash, airing daily until thermometer drops below 85 degrees. This is time to plant tomatoes and peppers. For cabbage, cauli-

flower, broccoli and kohlrabi, allow thermometer to go below 75 degrees.

On sunny days ventilate thoroughly, but even on cloudy days a crack of air may be needed to get rid of ammonia odor.

Drainage

Low, wet spots will produce better crops if drained by tiling. Oftentimes an open trench leading water away from a low spot can be filled with crushed stone or gravel and will perform as well as more elaborate tiling.

Or the problem may be one of too much drainage—a steep slope that allows water to run off so rapidly that it causes washing or erosion. Remember that not only does surface washing carry off soil, but it also carries with it the valuable soluble plant foods as well. Grading and terracing may be too costly for most gardens, but oftentimes a simple plank set on edge will control the rush of water and hold back soil and plant foods.

Garden Sanitation

Regular sanitation measures in the garden will reduce the number of pests and weeds that you will have to battle. Sanitation means the removal of all dead plants and weeds and the preventative treatment of the garden with regular spraying to kill the pests before they become serious. Remember that pest and weed control should extend about 25 feet around the garden to reduce the spread of them to the garden. Don't Sprinkle—Irrigate.

Don't Sprinkle—Irrigate

What we are after is a long, slow soaking of the soil so that water penetrates to a depth of several inches.

Water should always be applied so that the roots will be lured downwards rather than upwards as is the case when only the surface is moistened. Properly done watering need not be repeated oftener than once or twice a week.

In all the world, NO FINER FLOWER SEEDS THAN OURS!



PETUNIA, All Double

You may search the land over, but you cannot find flower seeds any better than those we sell! We can give you this absolute assurance because we sell only the tested seeds of the best growers... and we always make sure they are fresh, new crop seeds.



MARIGOLD, Sunkist



LARKSPUR, Ruby



COSMOS, Dazzler



PETUNIA, Glow

GARDEN SUPPLIES

BIRD HOUSES AND FEEDERS

Window Bird Feeders—Provides an opportunity to study your bird companions from your window. Ideal for shut-ins and a real companionship for any bird lover. **Bird Houses**—A great deal of pleasure can be derived from the birds that will be attracted to your yard by putting out a bird house or two. We carry many types and styles for bird lovers to choose from.

WILD BIRD SEED MIXTURE

Feed your feathered friends the year round with this tempting mixture. All types of wild birds relish this seed. Don't forget to give them plenty in the winter months.

GARDEN GLOVES

Garden Gloves—Protect your hands—wear gloves in your garden! Canvas or leather, in sizes for men and women.

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REG. U.S. PAT. OFF.

the modern fencing



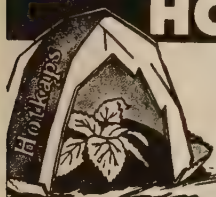
PROTECTS AND BEAUTIFIES

\$2.40
THE DOZEN

Easy to hammer into hard ground

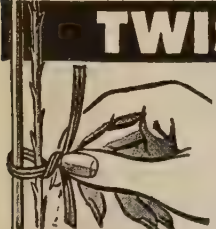
In cartons of two dozen (makes 24 feet of fence) 21" High, 12" Wide, 1/4" steel enameled green

HOTKAPS



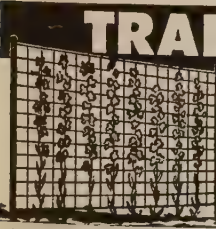
Patented individual hot-houses protect seedlings, young plants during critical period of root establishment against FROST, HOT SUN, STORMS, INSECTS. Hotkaps ripen plants 3 weeks earlier, increase yield 18% to 51%. **GARDEN PACKET** of 25, only 70c. Setter free.

TWIST-EMS



Strong, dark green "invisible" tapes with wire reinforcing — protect stems, permanently support annuals, perennials, vines, shrubs, and vegetables speedily and permanently. **Box of 250**, 4-inch size 35c; box of 125, 8-inch size 35c; box of 125, 16-inch size, 65c.

TRAIN-ETTS



Ideal support for SWEET PEAS, GARDEN PEAS, POLE BEANS, CUCUMBERS, TOMATOES. Hung in 5 minutes. Doesn't rot like string, nor burn tendrils like wire. 3 sizes—80-inch x 72-inch, 65c; 80-inch x 96-inch, 85c; 60-inch x 180-inch, \$1.25.

GARDEN HOSE

VISIT OUR STORE for our newest offerings. Garden hose is now available in good quality and quantity.

LABELS

Pot or Garden Labels (Wooden)—Used for marking plants in pots or seed flats.

4 in. 65c per 100
6 in. 80c per 100
12 in. \$1.95 per 100

Wood Tree Labels, Wired, Painted wooden labels equipped with wires, for marking trees or shrubs; also used extensively for labeling dahlia tubers.

100 1000
3 1/2 x 5/8 in. \$0.75 \$4.35

PLANT BANDS

Square bands hold almost twice the number of plants as round pots of the same size. 2 in. size, packet of 30, 25c. (Ask for prices on larger sizes and quantities.)

PLANT SUPPORTS

Bamboo Stakes—Green, pencil thickness.

Per 100 Per 1000
2 ft. \$1.50 \$ 8.50
3 ft. 1.95 12.25
4 ft. 2.50 15.95

Dahlia or Garden Stakes — Wooden — Painted green, Strong and durable. Almost rot-proof. Will last several seasons. For supporting dahlias, young trees, etc.

Doz. 100
4 ft. \$2.15 \$15.00
5 ft. 2.75 18.50
6 ft. 3.25 22.50

POTS AND SAUCERS

Standard Earthen Flower Pots. Many sizes, from 2 1/2 in. to 12 in. diameter.

Earthen Flower Pot Saucers. 3 in. to 12 in.

Red Paper Pots. Excellent for growing seedlings or for packing plants for shipment. 2 1/4 in. to 6 in. diameter.

TYING MATERIALS

Raffia, Natural. A palm-fibre used for tying plants, bunching vegetables, weaving, and basketry. 1/2-lb. pkg. 65c. In. braids (uneven weights) just as pulled from the bale, 90c per lb.

GRO-QUICK ELECTRIC SEED BED HEATER

SEED UP IN 30 HRS. TRANSPLANT 2 WKS. SOONER!

Soil cable for hotbeds, plant benches, cabinets, flats. 6 sizes (Free Cat.) J40A cable & thermo. for 1-sash \$6.75 S80A for double sash (36 sq. ft.) \$9.00



SEED SOER 50¢

You will love it - properly distributed seed goes twice as far - saves thinning. For peas to petunias. Cork of 6 1/2" x 1" plastic tube pivots in palm - tap gently. **SATISFACTION GUARANTEED.** Prepaid

WEED WAND "SPOT WEED KILLER WORKS LIKE MAGIC"

Kill dandelions and other unsightly weeds without stooping or digging. Simply touch lightly with the capillary applicator of the 33" x 1" plastic WAND. Weighs 15 oz. when filled with 2,4D — the marvel weed-killing hormone. \$1. for the WEED-WAND. Additional \$1. buys 48 fills of 2,4D **WEED-WALLOP** — enough to kill 100,000 weeds. Kills only the weeds you touch. **SATISFACTION GUARANTEED**



Protect your Garden and Fruit with SCARE-AWAY the Modern Scarecrow

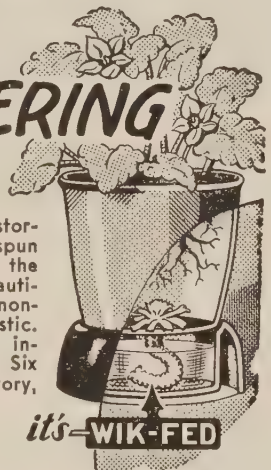


Completely new way to scare away birds, animals. Flashes of reflected light and the crackle and rattle of shiny, bright aluminum drives out the pests! Amazingly effective—and so easy to hang among plants, trees, shrubs—wherever you need protection. (Made by Donaxe Co., Portland, Ore.)

25¢ per package of 10
4 pkgs. postpaid, \$1.

Self-WATERING

New scientific flower pot feeds moisture and plant food from storage base through spun glass wick direct to the roots. Strong, beautiful, non-warp, non-fade Styron plastic. Violets and other indoor plants thrive. Six pastel shades—ivory, pink, coral, yellow, green, lavender. 4" diameter. \$1.00 each.



The NEW LOOK in Flower Pots

Protect your newly seeded lawn with

BEMIS EROSIONET

A strong, economical open-mesh fabric for use in making lawns and terraces. Prevents soil and seed from washing away.



NATURAIN From 2-inch trickle to 25-foot spray, at will!

April showers anytime of year—with this marvelous new method for watering lawns and gardens. No constant shifting . . . no water waste. Connects in a jiffy. Comes in 5 foot units, weight only 12 oz. Use 5 ft. to 30 ft., according to size of your garden. Primary unit, \$2.95; extension units \$2.75 each.

As every gardener knows, good seed alone can't make a successful garden. No matter how good the seed, it needs proper feeding. Like any living thing, it must be nourished.

As seedsmen, we do everything in our power to bring you the finest of seeds. We select seeds with the right heritage, with the inborn qualities that are needed to win out in the battle every growing thing must fight.

But once our good seed is in your hands, the rest is up to you! So—in your plans to get the best possible results from our good seed, consider carefully the information on plant feeding which we give you here.

Actually, plant feeding nowadays is a rather simple, easy job. While plants need many different elements of food for best growth, all these elements can be provided by one complete balanced plant food such as Vigoro. Without odor or muss, the modern balanced plant food takes care of all the usual plant needs of the garden—and does it inexpensively.

As to the questions of "how, when, where and why"—most of the information you need can be told in a few words. The basic routine of plant feeding for the home garden and lawn is this:

For LAWNS:

Follow these 3 steps . . .

1. Check to see that grass is dry!
2. Apply evenly 4 pounds of complete plant food per 100 feet of area, either with a spreader or by hand.
3. Soak the plant food into the ground immediately after applying.

If water is not available merely work the plant food off blades of grass with back of rake. NOTE: If plant food is applied early, before growth starts, steps 1 and 3 do not apply. Early thaws and spring rains work the plant food into the soil.

For FLOWERS, VEGETABLES, BERRIES . . .

Apply complete plant food at the rate of 4 pounds per 100 square feet of area before seeding or setting plants. For established perennials apply around plants or along both sides of row early in Spring and at six to eight week intervals.

For TREES . . .

Make a series of holes 12 to 18 inches deep with a 2" soil auger or a pointed stick under the drip of the branches. Figure the plant food need per tree by measuring diameter four feet from the ground and allowing 3 pounds of complete plant food per inch of diameter. Fill holes with a

mixture of half plant food and half soil or sand.

* * *

As to your choice of plant food:

We recommend VIGORO because of its unexcelled balance and its long record of unfailing reliability.

New gardening aids by the makers of Vigoro

Gardeners in our area are getting a lot of help from two other gardening aids now presented by Swift & Company, the makers of Vigoro.

These new essentials are EndoPest and EndoWeed.

EndoPest provides the wide range of protection most gardens need against chewing insects, sucking insects and fungus disease. It comes ready to use in a patented dust gun package. Also available in large economical packages for use in standard dust guns.

EndoWeed is improved selective lawn weed killer. It kills over 100 weeds, roots and all. And it is easy to apply with the new EndoWeed Side Spray that applies diluted EndoWeed to the side while you walk. No pumping . . . no wet feet. Ask us about these valuable gardening aids. You'll find them a real help in making your gardening easier—and more successful.

VIGORO... complete, balanced plant food

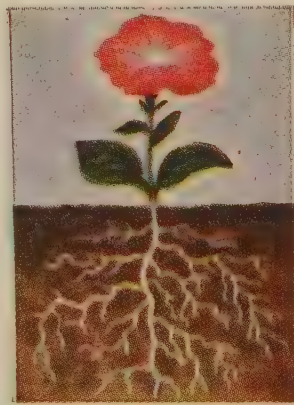
Develops humus in lawn soil!

Vigoro helps develop large root systems. Each year as part of the old roots decay, humus (organic matter) forms in the soil . . . dark, fertile! Your soil becomes more capable of sustaining your lawn through every season . . . a better storehouse for moisture and plant food.



Nourishes the whole plant!

Vigoro extends its benefits to blooms, stems, and roots. Gives good color to foliage—promotes quick growth and makes roots strong. It also strengthens stems, increases size and heightens color of blooms—promotes better general health of plants.



PLANT FOODS and SOIL CONDITIONERS

ALUMINUM SULPHATE—Used in creating acid soils needed for successful culture of Azaleas, Rhododendrons, etc.

BONE MEAL—All-purpose fertilizer, rich in nitrogen and phosphoric acid.

COW MANURE—Fine and dry. Absolutely weedless. Builds up soil and feeds plants in nature's way.

DRICONURE—All-organic fertilizer with a peat-moss base, impregnated with a high grade manure. Economical, safe.

FRUITONE—The remarkable hormone spray that stops pre-harvest drop of fruit. Sprayed on flowers of tomatoes it makes a high percentage of the crop SEEDLESS! Also beneficial on beans and on flowers.

HORMODIN POWDER—A powerful help for transplants and root cuttings. Use it on house, garden, and greenhouse plants, shrubs, evergreens.

HY-GRO—Extra-highly concentrated plant food, quickly soluble in water. Excellent starter solution and all-around fertilizer.

HYPONEX PLANT FOOD—Can be used in dry or liquid form; teaspoonful makes 1 gallon. Contains Vitamin B1.

LIME (Hydrated)—Sweetens sour soil for lawns, and clover. Is used as a reducer and in combination of many insecticides; for whitewash, deodorizing.

NITRATE OF SODA—Very quick source of nitrogen. Hastens maturity of crops. Should not be applied until plants are well above ground.

LEGUME INOCULATION

Just as necessary for garden peas and beans, lima beans, sweet peas and lupines as for alfalfa, clover, etc. The nitrogen-gathering bacteria build up the soil, increase your yields. Inoculation is the cheapest form of crop insurance. Packages from the 15c garden size up to 5-bushel size.

HY-GRO SOLUBLE PLANT FOOD

(13-26-13)

For flowers,
potted plants,
vegetables and lawns

Brings a balanced diet right to the roots. Use according to directions on package for starter solution and transplanting. Easy to use.

3 oz. . . 25¢ — 20 oz. . . \$1.00
— 10 lb. . . \$4.00. Also in 25,
50 and 100-lb. sizes for es-
tates and larger growers.

Ask for
FREE booklet

A PRODUCT OF **MCCORMICK & CO.**
Baltimore 2, Md.

NO-SEED—Hormone spray. Prevents blossom-drop on Tomatoes, greatly increasing crop. Also causes high percentage of seedless fruit.

PEAT MOSS—Fine winter protection for lawns; also as a mulch on strawberry, perennial beds, roses, evergreens, etc. When incorporated in the soil, it promotes growth and supplies humus.

PLANTABBS—Clean, white odorless plant food tablets for indoor or outdoor use.

ROOTONE—You can help cuttings to root faster by dipping them in this hormone powder before planting.

ROSETONE—New hormone product designed to reduce loss in transplanting rose bushes and to make them develop better root systems.

ROSE FOOD—A balanced combination of organic ingredients, selected for the particular "make-up" and sequence availability that roses need. Improves the color and size of your roses.

SHEEP MANURE—An economical and effective balanced plant food. Weed-free and rapid in its action. Supplies an abundance of humus and all the essential plant-food elements.

SUDBURY SOIL SWEETENER—New scientific way to sweeten soil. Raises pH right away. 1 qt. sweetens soil as much as 20 lbs. of lime.

SUDBURY SOIL SOURING SOLUTION—Makes soil acid.

SUPER PHOSPHATE—Aids plant nutrition and assists the plant to assimilate other ingredients. An efficient fertilizer element for lettuce, truck crops, cereal crops and alfalfa.

TERRA-LITE (VERMICULITE)—Use as mulch to protect plants during winter; doesn't mat down or become soggy. In Spring, work it around base of plants as soil conditioner. Unexcelled growing medium for flats; aids seed germination, speeds root development. Also excellent for storing root crops and bulbs.

TRANSPLANTONE—New Vitamin-Hormone stimulant effective in reducing transplant shock, and wilt of all kinds of plants or shrubs. Also effective in bringing about earlier maturity on tomatoes, lettuce, celery, peppers, tobacco and cabbage.

VIGORO—The complete plant food. Supplies all the elements growing things need from the soil. Because it offers such complete nourishment, Vigoro helps produce greater yields of finer flavored, more nutritious vegetables. Produces lovelier lawns and flowers. Clean and odorless.

TEST YOUR SOIL! SUDBURY SOIL TEST KITS

Jr. Professional
Model

Raise finer flowers and vegetables — the fancier's guide to prize-winning blooms. Shows kinds and amounts of fertilizers your soil needs — also whether lime is needed (pH) and how much. Easy-to-use . . . no knowledge of chemistry needed. Complete equipment, instructions and solutions for 50 tests for nitrogen, phosphorus, potash, acidity. 4.75 Only

Home Garden Model—Makes 20 tests. \$2.50
Horticultural Model—Makes 150 tests. \$12.50
DeLuxe Professional Model—Most economical to use. Lifetime hardwood chest. \$22.50

Terra-Lite* Vermiculite

Every gardening publication has discussed the fabulous results of Terra-Lite vermiculite. Surpasses anything you've ever used.

Buy a bag of Terra-Lite and you'll find many uses for it. Holds plenty of water, never shuts out air. Sterile too, no harmful weed-seeds, nothing to burn up or injure plants. Use Terra-Lite for:

- Starting seeds
- Putting in new lawns
- Rooting cuttings
- Transplanting
- Storing bulbs
- Mulching
- Lightening heavy soil

It's a year 'round gardening helper to you, in all these ways and many more. Complete instructions on every bag.

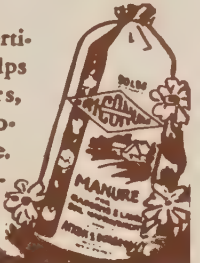
"All thru the year"

*Terra-Lite is the registered trade mark of Zonolite Company.

LOVELY FLOWERS VELVETY LAWNS

Easy when you fertilize with
DRICONURE

This 100% all-organic fertilizer and soil improver helps you grow better flowers, vegetables and lawns. Economical, safe, easy to use. In 50 lb. bags (approximately 2 bushels). Order a supply today.



HYPONEX PLANT FOOD



Grows bigger, better house plants, flowers, vegetables, lawns, and trees in poorest soil — even in sand, cinders or water. Results sure. Doesn't burn. Clean, odorless, soluble powder. 1 oz. makes 6 gallons.

	Retail
1 oz. pkt. (packed 72 to case)	10c
3 oz. can (packed 36 to case)	25c
7 oz. can (packed 24 to case)	50c
1 lb. can (packed 12 to case)	\$ 1.00
10 lb. drum, makes 1000 gals.	8.00
25 lb. drum, makes 2500 gals.	15.00
50 lb. drum, makes 5000 gals.	25.00
100 lb. drum, makes 10,000 gals.	40.00

PLANTABBS help grow
better potted
plants, flowers,
vegetables



Feed them **PLANTABBS**. If you don't get lovelier plants and flowers, and a greater yield of finer vegetables, you get your money back.

PLANTABBS are clean, odorless, highly concentrated **PLANT FOOD TABLETS** which help produce sturdy stems, luxuriant leaves, strong roots and gorgeous blooms. 25c, 50c, \$1.00 & \$3.50 size boxes.

Fullton's
PLANTABBS

PLANT FOOD TABLETS PLUS B1

in INSECT CONTROL

A leading entomologist recently said, "Progress in the last three years in development of insecticides has been greater than in the previous fifty."

The great sensation of the insecticide field has, of course, been DDT. It can now be said that DDT has fully lived up to its early promise of help for the home gardener. It has rightly been credited with miraculous results in many serious situations.

However, it must be remembered that DDT is not a cure-all. No single insecticide can ever take care of every situation.

Chlordane, the new wonder

Now comes another widely heralded new chemical miracle for the gardener—chlordane (also known as 1068). And again the results are living up to the early promises. Chlordane must now be recognized as a great new weapon in the battle with the insects.

But chlordane, like DDT, is not a cure-all. Remember, therefore, to consider it as just one more tool for the gardener—a highly valuable tool, but not a universal remedy.

What will chlordane do?

It is highly effective against grasshoppers and the American cockroach, Colorado potato beetle, squash bug, and some aphids. It is very effective on ant nests. It is the fastest working chemical yet found against Japanese beetle grubs in soil, killing 2½ times faster than DDT.

Further experience probably will increase the list of victories for Chlordane.

Meanwhile, we suggest that you begin to use this newcomer, while keeping on with DDT for the purposes it serves best.

Identify your insects!

Another page of this book gives you some full color portraits of common insects. For further help in identifying and classifying the job that confronts you, remember fundamental facts:

Types of insects

Biting or Chewing insects such as beetles, caterpillars, grasshoppers, and the like, can best be controlled by the application of poisons to the plants upon which they feed.

Sucking Insects such as aphids, weevils, leaf hoppers, etc., insert their beaks into the leaves, stems or fruits and suck the plant juices. Hence "stomach" poisons applied to the surface of the plant will not kill them. They must be killed by use of contact poisons.

Scale Insects that develop protective coverings are most easily killed by strong corrosive solutions, such as a concentrated lime-sulphur mixture, applied during late fall or winter when foliage is off the plants—and by other materials.

IF YOU'RE NOT SURE WHICH REMEDY IS THE RIGHT ONE, CONSULT US. IT'S OUR JOB TO SEE THAT YOU ARE PROPERLY ARMED FOR YOUR BATTLE AGAINST INSECTS & PLANT DISEASES.

INSECTICIDES & FUNGICIDES

ANTROL ANT TRAPS—Kills both sweet and grease eating ants.

ARSENATE OF LEAD—Controls practically all leaf-eating or chewing insects.

BLACK LEAF 40—Nicotine Sulphate 40% solution for controlling aphids (plants lice), thrip and soft bodied sucking insects.

BLACK LEAF 40 MOSQUITO-FUMER—New outdoor mosquito killer. Effective "smoke aerosol" deadly to mosquitoes.

BULB PROTECT—Repels moles, mice, wards off fungus diseases from bulbs in ground.

CALSIMUM ARSENTE—Cheap quick-acting poison for potato bugs; leaf-eating insects.

DU PONT FLORAL DUST

KEEPS BUGS AND BLIGHTS OFF FLOWERS



One product does the work of several—gives flowers, especially roses and fruit trees effective protection against many insects and diseases. Applied every week or two, you get season-long freedom from Jap beetles, aphids, caterpillars and other insects. Also controls mildew, black spot on roses, blights and other diseases. Contains two insecticides—methoxychlor,

powerful as DDT but harmless to plants, and rotenone. For disease control, sulfur and "Fermate" fungicide—recommended in the famous Massey formula for rose disease control. 8-oz. dust gun \$.79; 1-lb. sifter-top can, \$1.15; 4-lb. canister, \$3.50.

DU PONT GARDEN DUST

PROTECTS YOUR VEGETABLES

All-purpose combination of insecticides and fungicides. Applied every week or two, you get season-long protection against Jap beetles, bean beetles, corn borers, tomato worms and other insects. Also controls blights, leaf spots and other plant diseases. Especially formulated by Du Pont laboratories for effective garden protection. Du Pont Garden Dust contains two insecticides, rotenone and DDT; two fungicides, "Fermate" and "Zerlate." Dust on, or apply as a spray. 8-oz. dust gun, \$.79; 1-lb. sifter-top can, \$1.15; 4-lb. canister, \$3.50.



REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

BORDEAUX MIXTURE—Standard copper insecticide for controlling black spot, mildew, blight, other fungus diseases.

CERESAN—Controls covered smut and stripe of barley, oat smuts, and bunt or stinking smut of wheat.

CRO-TOX—Protects all smooth surface seeds from birds and rodents during germinating, sprouting, rooting stages.

DU PONT FLORAL DUST—Contains methoxychlor, and rotenone. Especially recommended for rose disease control; protection against insects.

D X SPRAY—Economical spray for both sucking and chewing insects. Harmless to human beings.

LINCK W.A.—Wetting agent. Mix with any concentrated spray to produce better wetting, greater spreading. Mixes readily in cold, hard and salt water; does not react chemically with spray materials.

LIME SULPHUR, Liquid—A dormant spray material against scale of all kinds.

LIME SULPHUR, Dry—A dormant spray to kill scale or use as a summer spray for control of fungus disease.

MILDEW SPRAY—Strong liquid spray for control of mildew, leaf spot and black spot on rose bushes, flowers.

MO-GO—Kills moles and gophers. Just place in runs. Results guaranteed.

RED ARROW

GARDEN SPRAY



Non-poisonous. Kills most chewing and sucking insects quickly, safely. 1 oz. makes several gallons of spray.

1 oz. .35¢; 4 oz. \$1.00; Pint. \$2.85

Ask for free booklet

How to Fight Garden Insects

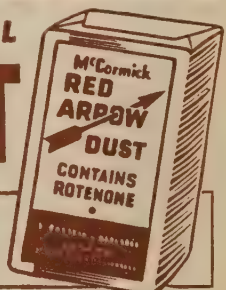
A PRODUCT OF McCORMICK & CO.

Baltimore 2, Md.

RED ARROW

AGRICULTURAL

DUST



¾%
ROTENONE!

Non-poisonous. Use as spray or wash for fruits, flowers, vegetables. Dust about every 10 days.

2 lb. . . 68¢—5 lb. . . \$1.55

A PRODUCT OF McCORMICK & CO.

Baltimore 2, Md.

IRIS GREEN—For control of chewing insects, particularly potato bugs.

PHYGON-XL FUNGICIDE—Seed protectant to be dusted on Beet, Tomato, Spinach, Peppers, etc. before planting to prevent seed decay and "damping-off".

RED ARROW GARDEN SPRAY—Contains Pyrethrum, Rotenone, Soap. Harmless to animals.

RED ARROW DUST—Use as spray or wash for fruits, flowers, vegetables.

TAT ANT TRAPS—Excellent for household use. Attracts both sweet and grease-eating ants who carry bait back to nest.

TAT CHLORDO—Chlorinated hydrocarbon for use as spray or concentrated dust. Highly effective for control of grasshoppers, cabbage maggots, alfalfa weevil, chinchbugs, cutworms, etc. For household use, very effective on roaches, ants, etc.

SCALECIDE—Reliable spray for scale and soft-bodied sucking insects.

SEMESAN—Effective in controlling damping-off, scab, hard rot, etc.

SEMESAN BEL—For use on potatoes. Controls many seed-borne diseases.

SNAROL—An insecticide bait to combat snails, cut worms, sow bugs, grasshoppers.

SPERGON—Seed-treating material for controlling fungus diseases. Improves germination.

SULPHUR, DUSTING—For controlling powdery mildew, blight, black spot, rust and most rose diseases.

SULPHUR, WETTABLE—An improved sulphur which can also be used as a liquid spray.

SYNKLOR CHLORDANE INSECTICIDE—Controls ants, chinch bugs, grasshoppers, Japanese Beetles and many other insects; roaches, ticks and wire worms.

Endo Pest

ALL THE PROTECTION MOST GARDENS NEED!

EndoPest gives you 3-way control over most chewing insects, sucking insects and fungus diseases...with one easy-to-use product. No mixing, no muss...just a few quick strokes with the handy dust gun package protects a row of vegetables or bed of flowers. Use with confidence on edible fruits and vegetables.

MADE BY SWIFT
MAKERS OF VIGORO

SPRAY WITH Black Leaf 40



Kills aphids and similar sucking insects. Kills by contact and by fumes. No burn. No stain. Also delouses poultry. Easily applied to roosts with handy Cap Brush.

Black Leaf Garden Dust protects gardens 3 ways: kills chewing and sucking insects, and controls certain plant diseases.

Black Leaf Mosquito-fumer kills mosquitoes outdoors. Brings prompt relief.

Look for the Leaf on the Package

NEW PROTECTION FOR BULBS in the ground!

Bulb Protect repels moles, mice, wards off fungus diseases

Now your valuable bulbs can be protected—after planting—against ravages of moles, mice and fungus diseases. Just dust with BULB PROTECT before you plant! Also protects bulbs in storage. Combines two of the newest insecticides with two of the oldest repellents. Easy to use—and costs very little! 1½ oz. pkt., 35c; 16 oz. \$1.75.



BULB PROTECT

BUG BLASTER

DUST & GUN... ALL-IN-ONE!

Protects flowers and vegetables from destructive insects and diseases. Contains multi-purpose insect and fungus dust... ready to use.

- Bug Blaster, 3-ft. gun, contains 2 lb. of dust..... \$1.98
- Bug Blaster Dust Refill, 2-lb. carton..... \$1.29
- Bug Blaster Jr., for little gardens and boxes..... \$.69



PRODUCTS OF SHERWIN-WILLIAMS RESEARCH

SPERGON SEED PROTECTANT

A powder to be applied to seed before planting to prevent "Damping-off," particularly in cold wet weather. Recommended for Peas, Beans, Lima Beans, Corn and other seeds, it is easy to apply to the seed and noninjurious to the user. NON-TOXIC. 1 oz. envelope, 25c; 5 oz. container, \$1.00; 1 lb. container, \$2.25.

SPERGON GLADIOLUS DUST CONTROLS THRIPS AND CORM DECAY

A dust containing Spergon and DDT to be applied to corms before planting. May also be used on Tulips, Narcissus and Iris. 2 oz. envelope, 25c; 1 lb. container, \$1.50.

DUST SPRAY INSECTICIDE FUNGICIDE

An outstanding ready mixed formulation to simplify pest control. Used as a dust or spray. Recommended for Roses, Fruit Trees, Tomatoes and Beans. Contains PHYGON, SULPHUR, DDT AND ROTENONE. 1 lb. container, \$1.00; 5 lb. bag, \$4.00.

PHYGON-XL FUNGICIDE

Controls all leaf blights and fruit rot of Tomatoes, black spot of Roses, apple scab and many other plant diseases caused by fungi. A seed protectant to be dusted on Beet, Tomato, Spinach, Swiss Chard, Peppers and other seeds, before planting to prevent seed decay and "damping-off." 2 oz. can, 50c; 4½ oz. container, \$1.00; 1 lb. container, \$2.70.

PHYGON ROSE DUST INSECTICIDE FUNGICIDE

A dust containing PHYGON, an outstanding fungicide for black spot and mildew control; also DDT for insect control. 1 lb. container, 75c; 5 lb. container, \$3.00.

SYNKLOR-50-W CHLORDANE INSECTICIDE

A dry wettable powder containing 50% technical chlordane. Controls ants, chinch bugs, grasshoppers Japanese beetles, Japanese beetle grubs, mole crickets, roaches, ticks and wire worms. 8 oz. can, \$1.50; 1 lb. can, \$2.50.

SYNKLOR-48-E CHLORDANE INSECTICIDE

An emulsion containing 48% technical chlordane. Controls ants, chinch bugs, grasshoppers, Japanese beetles, Japanese beetle grubs, mole crickets, roaches, ticks and wire worms. Use three teaspoonfuls per gallon of water as a spray. 8 oz. bottle, \$1.25; 1 qt. bottle, \$4.00.

TAT ANT TRAP



Ideal for household use. Attracts both sweet and grease-eating ants who carry bait back to wipe out entire nest. Metal container protects children, pets. Price 25c. ea.

MO-GO

KILLS MOLES & GOPHERS
Results guaranteed. Just place in runs. Large container (over 300 baits): \$1.00.



No there!
PROTECT your seeds with CROTOX

STOPS crows, pheasant, lark, starling, blackbirds, dove, squirrels, woodchucks, etc. from pulling or molesting seeds. Save seed and labor of replanting; prevent seed rot... with the original repellent used by leading growers everywhere.

½ pt. 60c TREATS 1 BU. SEED
1 pt. 1.00 TREATS 2 BU. SEED
1 qt. 1.75 TREATS 4 BU. SEED
1 gal. 4.50 TREATS 16 BU. SEED



BONIDE CHEMICAL CO., Utica, N. Y.
Since 1926

WEED KILLERS

AMMATE WEED KILLER—For control of poison ivy, ragweed, Canada thistle, other weeds. Do not use on lawns.

DU PONT LAWN WEED KILLER—Contains 15% 2,4D. Won't harm most common grasses.

END-O-WEED—Selective; kills over 100 weeds, roots and all.

NON-SELECTIVE WEED KILLER—A quick acting arsenical product that destroys weeds and all other vegetation. The proper killer for weeds in drive ways, tennis courts, paths, and all areas which must be kept free of plant growth. Creates a sterile soil condition for a long period.

TAT C-LECT—Selective crab grass killer. Safe on turf grasses.

WEEDONE—2,4D weed-killer. Kills weeds without killing grass.

WEEDUST—2,4D in powder form.

WEED-NO-MORE—Kills weeds but not the grass. Contains 2,4D.

MISCELLANEOUS

CHAPERONE, LIQUID—Outdoor dog repellent that won't dissolve in rain. Harmless, long lasting.

CHAPERONE, POWDER—Indoor dog repellent, that keep your dog off furniture. Almost odorless to humans. A fine help in training your dog.

DR. MERRICK'S SULFODENE—Amazing relief for dogs and cats tortured with skin itch. Apply externally.

PRUNING PAINT—A specially prepared liquid paint containing copper for treating wounds left by pruning, storms, or accidents, to prevent fungus diseases.



KILL SCALE! APHIS! RED MITE!

Spray your trees and shrubs with Scalecide, complete dormant spray. Give them a clean, healthy start for spring growth. 1 gal. makes 16 gals. spray.

Kill More Garden Insects With D-X

This non-poisonous spray kills both chewing and sucking insects on fruits, vegetables and flowers. Aphis, Leaf Hoppers, Red Spider, Tent Caterpillar-Mexican Bean Beetle, etc. Dilutes 1 to 400, economical.



PET SUPPLIES

Our supplies for your pets are selected with the same care as our seed selections. That's why you will always find this store A GOOD PLACE TO BUY PET SUPPLIES.

AMAZING RELIEF FOR ITCHING DOGS CATS

SULFODENE used externally stops summer eczema's itching in minutes; clears up scales and sores in a few days. Only \$1.00 for generous treatment.

EAR CANKER—Dr. Merrick's EAR CANKER Creme contains Tyrothricin; works swiftly to relieve pain, remove causes and aid healing of ear canker. Only \$1.00 in special applicator tube.



Get rid of crabgrass this year and have an emerald lawn from Spring till snowfall! Start early, kill crabgrass and weeds simultaneously with TAT C-Lect, TAT Weed C-Lect combination. It's safe—it works—just follow directions.

TAT C-Lect: 1/2 pt., 85c;
1 pt., \$1.50; gal., \$9.75
Combination Package: \$2.25



ANTROL ANT TRAPS

Metal traps containing two types of material that attract and kill grease and sweet-eating ants.

Each 15c



SNAROL Cutworm Bait

Non-injurious to vegetation. Attracts and kills cutworms, snails, slugs, sow-bugs, earwigs.

1 lb., 35c;
2 1-2 lbs., 75c

ACME GARDEN DUSTS AND SPRAYS

DURADUST No. 50

Contains 50% Wettable DDT

The strongest, finest DDT powder science has yet been able to produce! Duradust No. 50 is toxic when eaten by the insect or when it comes in contact with the insect's legs or body. Its killing power endures. FOR CROP SPRAYING OR DUSTING—controls codling moth, oriental fruit moth, leaf hopper, flea beetle, psyllid, potato bug, potato aphid, plant bug, jap beetle, cabbage worm, caterpillar, thrip, rose chafer, and many others. Suitable for all plants except vine crops. FOR LAWN SPRAY—controls, cutworms, ants, earwigs, sow bugs, chinch bugs. FOR WALL SPRAY—Most economical in barns, milk houses, hog sheds, etc. Also excellent FOR CATTLE SPRAY, DIP, OR DUST. 1 lb. 80c; 4 lbs., \$1.75; also available in 50 lb. bags.



ACME ROTENONE GARDEN GUARD

Controls the widest variety of chewing and sucking insects of any insecticide on the market today. Non injurious to humans, pets and animals. Use as dust or spray to control aphids, bean beetles, asparagus beetles, horn worm, tarnish plant bug, cabbage worms, current worms, rose caterpillars, blister beetles and other common insects. 1 lb. sifter, 50c; 1 lb. pump gun, 65c; also available in 4 lb. pkgs. and 50 lb. bags.



ACME ALL ROUND SPRAY



For roses, azaleas, other flowers, shrubs, vegetables, vines. A new, modern, carefully formulated multi-purpose product designed to provide with one application the best available protection against both insects and fungi such as rose chafer, azalea flower spot, thrip, black spot, downy mildews, leaf spot, many rusts, Japanese beetle, leaf-hopper, flea beetle; aphis, cabbage worm and many others. Suitable for dusting as well as spraying. 1 lb. Carton \$1.15; 4 lb. Carton \$3.75.

RED RIVER POTATO MIX

Contains 9.5% Wettable DDT, 15.1% Metallic Arsenic, 25.7% Metallic Copper. For years the recognized leader, now even better. Shows 25% and more increases in yield when compared to older methods in repeated tests. Controls all insects which eat the leaves, suck sap, irritate leaf surfaces or cause disease infection. Acts as a stomach poison and by contact. High copper content gives better blight prevention, produces green, healthy foliage. Use as spray or as dust. 1 lb., 58c; 4 lbs., \$1.90.



ACME TOMATO DUST

A general garden insecticide and fungicide with special emphasis on complete tomato protection. Controls early and late blight as well as horn worm, fruit worm and flea beetle on tomatoes as well as on cucumbers, beans, cabbage, potatoes and many flowers such as hollyhocks, asters, roses, azaleas, etc. 1 lb. sifter, 55c; 4 lb. pkg., \$1.25; available in 50 lb. bags.



also

ACME WEED KILLER Kills ALL vegetation

A powerful quick-acting arsenical weed killer for destroying weeds and all plant life on driveways, tennis courts, paths, also for spotting out dandelion, plantain and other noxious weeds in the lawn, using a regular weed cane or a squirt-bottom oil can. Pint, 60c; Quart, 85c; Gallon, \$2.25.



ACME GARDEN DURADUST

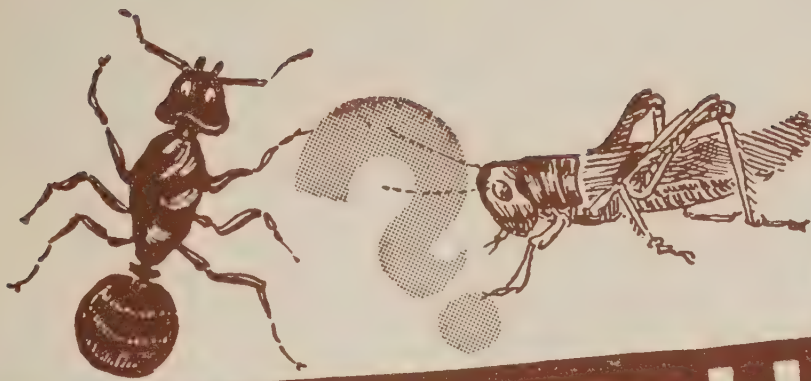
A ready-to-use dust for home gardens, contains 5% DDT and 9% metallic copper. Effective not only as a powerful insecticide but as a fungicide in control of many forms of blight and fungous diseases. Particularly effective on rose chafer, leaf hopper and corn ear worm. Dust or spray. 1 lb. sifter, 39c; 4 lb. bag, 85c



ACME WETTABLE DUSTING SULPHUR

Controls mildew, leaf spot, black spot and rust on roses, chrysanthemums, snapdragons, carnations and other foliage and red spiders on evergreens. Use as a dust or spray. Also excellent as a chigger repellent. 2 lbs., 45c.





got an insect problem

get **COLORADO .44** CHLORDANE INSECTICIDES

FOR THE GARDEN—Colorado .44 wipes out grasshoppers, chinch bugs, thrips and many other field crop and garden pests.



FOR THE HOME—Colorado .44 kills ants, moths, silverfish, roaches, spiders, crickets, bedbugs, earwigs.



FOR LIVESTOCK AND POULTRY—Colorado .44 destroys ticks, mites, lice, fleas, blue bugs and many others.

Made with Chlordane—the amazing miracle bug-killer. Destroys insects in a few hours—a single application lasts for weeks—easy and pleasant to apply—harmless to plants and animals when properly used.



Available as

DUSTS • SOLUTIONS • CONCENTRATES

McMAHON COMPANY, INC.

CORNER 5TH & RAPID STS.

RAPID CITY, S. D.

WEED KILLERS

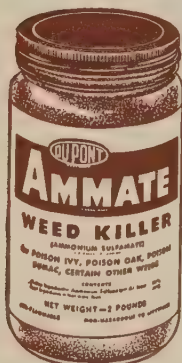
Our weed killer department, as usual, is keeping right up with the times. And that's saying a good deal, nowadays, when miraculous developments in weed killers are coming so fast.

Ever since the new selective weed killers began to appear, we have kept in close touch with leading authorities on this work. Therefore, we KNOW the new weed killers thoroughly, and can safely advise you about their use.

TWO DU PONT WEED KILLERS

1 "AMMATE"

Ammonium Sulfamate



One thorough treatment permanently kills roots and foliage of poison ivy, tree sprouts, brush, poison oak, sumac, ragweed and other woody perennials. Non-poisonous, therefore perfect for driveways, paths, walks, vacant lots, etc. Just mix with water and apply. DO NOT USE ON

LAWNS. 2-lb. bottle, \$1.85; 6-lb. bottle, \$2.25. States west of and including Mont., Wyo., Colo., N. Mex., 2-lb. bot. 95¢; 6-lb. bot. \$2.55.

2 DU PONT LAWN WEED KILLER A 2,4-D PRODUCT

Keeps lawns free of dandelion, plantain, bindweed and almost every other broadleaf weed. Selective, too...won't harm most common lawn grasses. Mix with water and apply. Cover entire lawn or just apply to weeds. Contains 15% ester of 2,4-D. Safe with humans and animals. Won't hurt soil. 8-oz. can, \$1.00.



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

SPOT-KILL

Lawn Weeds

WEEDUST

(TRADEMARK)

2,4-D in the ready-to-use can

Kill those here-and-there weeds in your lawn with Weedust—2,4-D in powder form. Just shake a pinch of Weedust directly on the weed from the can. No mixing or measuring or sprayer needed.

Large size can, 75c
Enough to kill 1,000 weeds

Kill Lawn Weeds

WEEDONE®

the original 2,4-D weedkiller

Spray your lawn with Weedone. Grass is not affected, but dandelions, plantains and other noxious weeds curl, dry up and die. Weedone kills poison ivy, poison oak, bindweed and honeysuckle, too. Safe for people and pets. Does not corrode spray equipment.

Trial size can, 75c • Quart, \$2.50
Gallon, \$6.50 • Larger sizes on request

It's time to order

WEED-NO-MORE

SPRAY AWAY UGLY LAWN WEEDS THIS EASIER, PROVEN WAY

This spring, get rid of dandelions and other ugly lawn-weeds. Just spray on Weed-No-More . . . Weeds die, roots and all! Have a beautiful, weed-free lawn to be proud of.



8 oz., makes 8 gallons, \$1.00
enough for average lawn...

Economy qt., makes 32 gal....\$2.98

WEED-NO-MORE SPRAYER—fits any gal. or 1/2-gal. glass jug. Built-in measuring device included! Only 39c

USE EndoWeed TO Spray WEEDS AWAY!

● Rid your lawn of weeds with EndoWeed, selective lawn weed control! Kills 'em roots and all. Easy, economical to use.

Presented by Swift...



HORMONE PREPARATIONS

Gardeners who are "in the know" wouldn't dream of trying to garden without the help of the various hormone preparations now available to them!

Garden hormone materials make seedlings grow better, make transplanting easier, help plant growth in many ways. They also prevent blossom-drop, make tomatoes solidier, more nearly seedless, and keep fruit of any kinds from dropping prematurely.

FASTER, SURER ROOTING

for cuttings, seeds and bulbs

ROOTONE®

the plant hormone powder

Rootone stimulates the natural tendency of seeds, cuttings and bulbs to put out roots. Rooting is faster and heavier, resulting in bigger, earlier plants. Endorsed and used by leading growers everywhere.

Trial packet, 25c • 2-oz. package, \$1
1-lb. can, \$5

TRANSPLANT SAFELY

TRANSPLANTONE®

Transplantone reduces shock and wilt when seedlings and plants are moved. Stimulates root growth so that fewer seedlings die and more come to early, healthy maturity. Used to water plants, shrubs and trees, Transplantone encourages growth and bloom.

1/2-oz. packet, 25c • 3-oz. package, \$1
1-lb. can, \$4

MORE TOMATOES!

FRUITONE®

Spray Fruitone at blossoming time and each plant will set more fruit and bear more big, meaty tomatoes. Spray Fruitone for bigger crops of beans and lima beans, too. The dollar package makes 25 gallons of spray.

2/5 oz. packet, 25c • 2-oz. package, \$1
12-oz. can, \$5

RECOMMENDATIONS
FOR
AGRICULTURAL
USE OF
WEEDONE
CONCENTRATE
48

AND

WEEDAR 64

Monahan Co.

250 First and Fuel
id City, S. Dak., Phone

The American Chemical Paint Company introduces to the agricultural field two new 2,4-D concentrates: WEEDONE CONCENTRATE 48, which is our agricultural ethyl ester form of the original 2,4-D, and WEEDAR 64, a soluble amine salt.

AMERICAN CHEMICAL PAINT CO.
Agricultural Chemicals Division
Ambler, Pa.

WHY ARE TWO FORMS OF 2,4-D NEEDED?

WEEDONE CONCENTRATE 48 contains 3 pounds of 2,4-D acid equivalent per gallon, or 39% of the ethyl ester in a carrier which our five years of research have shown to be the most effective material in its penetrating and killing properties. On the more resistant weeds, WEEDONE CONCENTRATE 48 gives a better kill than does WEEDAR 64. Rainfall will not alter the effectiveness of WEEDONE CONCENTRATE 48, although rain occurring within two hours after the application of WEEDAR 64 can decrease its effectiveness. When weeds must be treated under conditions which are not considered to be most favorable (as during a drought or after annual weeds have reached the seed stage) WEEDONE CONCENTRATE 48 should be used. Also, on woody material like poison ivy, poison oak, cottonwood, willow and wild cherry, WEEDONE CONCENTRATE 48 has consistently given the best kill.

WEEDAR 64 contains 68% of an alkanolamine salt, or 4 pounds of 2,4-D acid equivalent. The amine salts have proved to be more efficient than the sodium salt in killing properties. Since the WEEDAR 64 material is not volatile and (except in the case of drift) will not cause injury to an adjoining crop, it is recommended for use in treating a crop adjoining a susceptible one such as cotton, tomatoes or peas. We also recommend WEEDAR 64 for the easy-to-kill weeds and for pre-emergence treatment. Because WEEDAR 64 is a liquid, it is more easily and more accurately measured than the inorganic salts. It is completely soluble in water, an essential feature for the low volume sprayers that will be widely used.

WHEN TO APPLY

We feel that the stage and rate of growth are the most important factors in weed eradication work. Temperature is not as important as was previously thought. Although cooler temperature slows up the action and takes longer to produce a kill, the final results are the same regardless of temperature. Annual weeds are most easily killed by treating any time before they flower, preferably when they are small and actively growing. The more resistant perennial weeds may require two applications, the first one before the early bud or flowering stage, and the second in the fall when the regrowth is in the rosette stage. WEEDAR 64 should not be applied if rain threatens within 2 or 3 hours. WEEDONE CONCENTRATE 48 can be used under these conditions.

METHODS OF APPLICATION

There are many different types of sprayers being used for weed control work, and the amount of material that they apply varies from 5 to 200 gallons per acre. For this reason, all our recommendations are expressed in pints of WEEDONE CONCENTRATE 48 or WEEDAR 64 applied to one acre of ground. In large scale spray-

ing, the concentrated low volume spraying is replacing high volume spraying. The results (in regard to actual weed control) seem to be the same with either method. We favor the low volume spraying of 5 to 20 gallons per acre because it can be done more cheaply and with greater ease. The farmer using low volume spraying equipment must be accurate in the amount of material applied per acre and he should follow the manufacturer's directions carefully as to nozzle spacing, distance of boom from ground, pressure, and forward speed.

We have made a survey of the equipment used for weed spraying and find that our WEEDONE CONCENTRATE 48 or WEEDAR 64 can be used successfully in any type of machine which will deliver a consistent amount of solution per acre.

Scarcity of water and roughness of terrain are factors contributing to the introduction of dusting with 2,4-D. We offer WEEDUST, a 5% acid equivalent ethyl ester dust which has proved itself in airplane, helicopter, and ground dusting machines. The factor of drift to susceptible crops must be considered in using this material.

The application of WEEDONE CONCENTRATE 48 or WEEDAR 64 by airplane gives the same high standard of performance as does ground spraying. WEEDAR 64 is compatible only with water, but WEEDONE CONCENTRATE 48 is miscible in cyclic oils such as Standard S21 or Shell E407R, as well as in water.

In knapsack spraying for spot treating, we suggest that WEEDONE CONCENTRATE 48 and WEEDAR 64 be used at a rate of $\frac{1}{4}$ pint to 5 gallons of water.

DIRECTIONS FOR THE USE OF WEEDONE CONCENTRATE 48 AND WEEDAR 64

The amounts of material are expressed in pints applied per acre and cover a range of effectiveness determined by the growth stage, rate of growth, and the susceptibility of the weeds present. Use minimum amounts of WEEDONE CONCENTRATE 48 and WEEDAR 64 on susceptible weeds, when plants are growing rapidly. Use maximum amounts on resistant weeds when conditions are unfavorable. The effectiveness of herbicides depends on so many factors which may vary in different sections of the country that this bulletin does not attempt to replace your local or state agricultural authority's recommendations.

SELECTIVE WEED CONTROL

(a) **For the control of troublesome weeds in pastures, golf courses, cemeteries, parks, and other large turf areas,** we suggest using 2 to 4 pints of WEEDONE CONCENTRATE 48 or WEEDAR 64 per acre, depending on the susceptibility of the weeds. (Common susceptible weeds are dandelion, broad- and narrow-leaved plantain, ragweed, cocklebur, garlic and heal-all. Resistant varieties are field bindweed, thistles, pigweed, burdock, nettles and similar pests. Spring

or fall application is favored, as it gives the grass a better chance to fill in the bare places. On turf areas where **bent grass** is predominant, use the minimum amount for control. Where **clover** is maintained, use the minimum amount suggested; although the flowering will be inhibited, most of the clover will survive the treatment. Most of the **seedling grasses** are sensitive to 2,4-D, so it is suggested that spraying be delayed until the root systems are well established and a sod has been formed. For the control of **crabgrass**, use 4 pints of WEEDAR 64 or 5 pints of WEEDONE CONCENTRATE 48 per acre, applying it before the crabgrass seeds germinate.

- (b) **For the control of turf weeds in seed grass crop**, use $\frac{1}{2}$ to 2 pints of WEEDONE CONCENTRATE 48 or 1 to 3 pints of WEEDAR 64 applied per acre depending on the susceptibility of the weeds. Use these sprays after the young grass seedlings have established roots and formed sod or before the boot stage.
- (c) **For control of weeds in spring wheat, barley, rye, oats**, use $\frac{1}{2}$ to $\frac{3}{4}$ pints of WEEDONE CONCENTRATE 48 or $\frac{1}{2}$ to $\frac{3}{4}$ pints of WEEDAR 64 per acre for the control of such weeds as mustards, Frenchweed, marshelder, ragweed, sunflower, cocklebur, wild buckwheat, and hedge bindweed. Apply at full tiller stage or when 6" high to early boot stage. On oats, wait until crop is 10" high. For the control of such resistant weeds as field bindweed, Canada thistle, sow thistle and similar weeds, apply 1 to 2 pints of WEEDONE CONCENTRATE 48 or WEEDAR 64 per acre.
- (d) **For control of annual weeds in winter wheat and rye**, apply $\frac{1}{2}$ to $1\frac{1}{2}$ pints of WEEDONE CONCENTRATE 48 or WEEDAR 64 in the spring.
- (e) **For the control of weeds in corn**, we suggest that you follow either pre-emergence or post-emergence treatment:

For pre-emergence treatment of corn, apply between 2 and 4 pints of WEEDAR 64 or WEEDONE CONCENTRATE 48 per acre 4 to 8 days after the corn has been planted. This treatment is recommended for the control of grass weeds as well as broadleaf weeds in corn; it eliminated the need for cultivation on many farms last year. Until further research is reported, **do not attempt pre-emergence treatment on light sandy soils.**

For post-emergence treatment of corn and sorghum, apply $\frac{1}{2}$ to $1\frac{1}{2}$ pints of WEEDONE CONCENTRATE 48 or WEEDAR 64 per acre after corn reaches 6" and before tasseling. Use the lowest recommendation on the susceptible weeds like cocklebur, ragweed, mustard, and sunflower, and the higher dosages on the more resistant perennials like the thistles, the nettles, and bindweed. Most corn varieties are more susceptible during the rapid growth stage, when about 10" to 30" high. If it is necessary to treat with the higher dosages during this stage of growth, it is advisable to place an extension on your

spray boom and keep as much spray as possible out of the whorl of the corn plant. It is also advisable to use low volume sprayers. With the lower dosages, these precautions are not necessary.

For the control of weeds in sorghum, use the lowest recommendation applied as suggested for corn.

- (f) **For the control of weeds in flax**, we suggest applying $\frac{1}{8}$ to $\frac{1}{4}$ pint of WEEDONE CONCENTRATE 48 per acre or $\frac{1}{4}$ to $\frac{1}{2}$ pint of WEEDAR 64 per acre to control such susceptible weeds as mustard, Frenchweed, sunflower, cocklebur, ragweed, marshelder, and similar susceptible weeds in tolerant varieties. (Redwing, Cheyenne, Royal, Kota, and Dakota are the most tolerant flax varieties tested.) Make the application when the flax is 2" to 6" high and weeds are in the four-leaf or rosette stage. When a potential hazard to the flax crop is presented by an infestation of resistant weeds like bindweed, Canada thistle, sow thistle, smartweed, wild lettuce, artichoke, etc., some reduction in yield may be justified by the use of higher dosages. In this case, apply 1 to $1\frac{1}{2}$ pints of WEEDAR 64 or $\frac{2}{3}$ pints of WEEDONE CONCENTRATE 48 per acre when flax is 6" high to first bud, or when weeds are in rapid growth but pre-bloom stage.
- (g) **For killing weeds in rice**, we suggest that you apply 2 pints of WEEDAR 64 or WEEDONE CONCENTRATE 48 during the first 2 weeks **after** flooding. $1\frac{1}{2}$ pints of WEEDAR 64 can be used 1 to 3 days before flooding; however, we feel that after flooding is the safest time for the application of WEEDAR 64. This treatment will control such weeds as coffee weed, red weed, mule ear, turtleback, Mexican weed, yellow sedge, indigo, and others in the growing rice, and will allow the rice to develop fully and free of weed seeds.
- (h) **For killing weeds in sugarcane**, we suggest that you use 2 to 4 pints of WEEDONE CONCENTRATE 48 or WEEDAR 64. To obtain the most effective weed control in sugarcane, spray alligator weed and other weeds from April to "lay-by" time.
- (i) **For selective killing of weeds in strawberry beds**, apply 2 pints of WEEDONE CONCENTRATE 48 or WEEDAR 64 per acre. Application may be made at any time during the **first season** of a planting. Since 2,4-D affects both blossoms and fruits, spraying should be delayed until **after harvest** on **second-year plantings**. For small areas, mix 2 teaspoons of WEEDONE CONCENTRATE 48 in 1 gallon of water and spray weeds after harvest.
- (j) **For selective killing of weeds in asparagus**, we suggest that 2 to 3 pints of WEEDONE CONCENTRATE 48 per acre or 4 pints of WEEDAR 64 per acre be applied to the ground. This pre-emergence application should be made before growth starts in the early spring. It will control annual, biennial, and perennial seedlings, but will not control the perennial weeds.

GENERAL WEED CONTROL

- (a) **For control of annual and perennial weeds on non-cropped land**, we recommend that you use WEEDONE CONCENTRATE 48 or WEEDAR 64 at a rate of 2 to 4 pints per acre. On the easy-to-kill annual weeds, such as mustard, giant ragweed or cocklebur, the lowest amount may be used. On the resistant perennial weeds, we have had best results by using the maximum dosage just before flowering, and making a second application in the fall, when the regrowth is in the rosette stage.
- (b) **For control of woody plants** such as sumac, poison ivy, elm, wild cherry and willow, use from 3 to 6 pints of WEEDONE CONCENTRATE 48 or WEEDAR 64 per acre in a low volume sprayer, or 4 pints of WEEDONE CONCENTRATE 48 or WEEDAR 64 in 100 gallons of water, sprayed on the foliage of woody plants. Spray after the plants are in full leaf and, if possible, when there is adequate moisture in the soil. Experiments have shown this material can be applied in the fall up until 3 or 4 weeks preceding the average frost date for your area. Red maple, ash and hickory are very resistant varieties and even 2,4-D sprays will not kill them unless repeated applications are made.

For large tree stumps, we suggest that you dilute WEEDONE CONCENTRATE 48 with an equal part of kerosene or cyclic oil and apply to the exposed surface. We have found that it is advisable to wait until freshly cut stumps dry out before this material is applied.

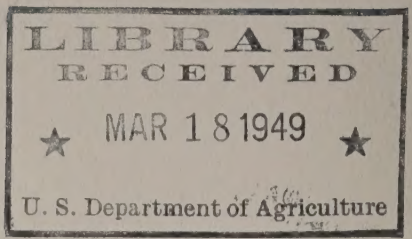
To kill large trees that have not yet been cut, it is suggested that you make a cut around the base of the tree, reaching the cambium layer, and apply WEEDONE CONCENTRATE 48 to this exposed surface.

The above directions are for the general use of WEEDONE CONCENTRATE 48 or WEEDAR 64. If you are in doubt regarding the use of these materials on any crop or on any specific weeds, please write our Agricultural Chemicals Division, or consult your local agricultural authorities.

WARNING: If improperly handled, any 2,4-D preparation can kill desirable plants as well as the undesired ones. Keep spray away from flower beds, ornamental shrubs, and such sensitive crops as cotton, peas and tomatoes.

If the sprayer is to be used later on susceptible crops, all parts of the spray equipment (including tank, nozzles and hose) **must be washed thoroughly with tri sodium phosphate or ammonia water.**

62.79



MCMANON COMPANY INC

February 21, 1949
Prices f.o.b. Rapid City

Retail Prices
Prices f.o.b. Sturgis 10¢ cwt higher

PURINA POULTRY CHOWS

	25#	100#
*Chick Startena	\$ 1.55	\$ 5.80
*Broiler Chow Meal	1.40	5.25
*Chick Growing Chow	1.50	5.45
*Chick Growena	1.40	5.10
*Lay Chow	1.40	5.10
Breeder Lay Chow	1.50	5.50
*Layena Meal	1.30	4.80
Chick Chowder	1.65	6.15
Chowder Special	1.85	6.90
*Available in checker-etts 15¢ cwt higher		

CATTLE & SHEEP FEEDS

Due to recent storms we advise putting in enough range feed to feed your live stock until April 1 or about 50 to 60# per head. Cost is only about \$2.00 per head for this insurance.

	100#	Ton
Purina Range Checkers	\$ 4.40	\$ 85.70
41% Lucky 7 Pellets	4.90	94.10
Soybean Meal	4.55	87.00
Soybean Pellets	4.65	89.00
Soybean Pellets-Staleys	4.80	93.00
Ask for carload prices		

TURKEY CHOWS

	25#	100#
*Turkey Startena	\$ 1.65	\$ 6.15
*Turkey Breeder Chow	1.50	5.60
*Turkey Growing Chow	1.55	5.70
*Available in checker-etts 15¢ cwt higher		

REGISTERED BRANDS FEEDS

	25#	100#
R. B. Starter Mash	\$ 1.35	\$ 5.00
R. B. Growing Mash	1.30	4.70
R. B. Lay Mash	1.25	4.55
R. B. Dairy Ration	1.05	3.70
R. B. Chick Scratch	1.05	3.70
R. B. Hog Ration	1.05	3.70
R. B. Hen Scratch	1.00	3.50
R. B. Chop Feed	.80	2.80

PURINA CATTLE & SHEEP FEEDS

	100#
Steer Fatena Meal	\$ 4.05
Beef Chow Checkers	5.85
Calf Startena	6.40
Calf Chow	7.55
Cow Chow Concentrate	5.25
Bulky Las & Oats	3.85
Bulky Las	3.90
Omolene	4.60

MINERALS

	100#
Purina Livestock Mineral	\$ 5.90
Swift Mineral	4.30
Swift Mineral Block	Each 2.50
Special Range Mineral (Hy-Phos)	5.70
Worth-Mor Mineral Cattle Block	ea 2.20
Worth-Mor Mineral Sheep Block	ea 2.20

RABBIT, GOAT & DOG CHOWS

	5#	25#	100#
Dog Chow Kibbled Meal	.65	2.85	10.80
Dog Chow Checkers	.65	2.85	10.80
Rabbit Chow Meal		1.40	5.10
Rabbit Chow Checkers		1.35	5.05
Mink Chow		1.70	6.30
Goat Chow	50 lb. bag		2.65

SALT

	100#
Hay & Stock Salt	\$ 1.35
Water Softener Salt	1.40
Mineralized Salt	2.50
Butterflake Salt	2.05
White Block	Each .75
Sulphur Block	Each .85
Iodized Block	Each 1.00
Rabbit Spools	Each .05

HOG CHOWS

	100#
Sow & Pig Chow Meal	\$ 5.85
Sow & Pig Chow Checkers	5.95
Pig & Hog Chow Supplement	6.20
Pig & Hog Chow Supplement Checkers	6.30

GRAINS & FEED

	100#
Ground grain 10¢ extra. Ask for ton price	
Yellow Corn	\$ 2.70
Cracked Corn	2.80
Oats	2.60
Ground Oats	2.80
Wheat	3.60
Barley	2.50

ALFALFA PRODUCTS

	100#	Ton
Dehydrated Alfalfa Cubes	4.20	76.00
Dehydrated Alfalfa Meal	3.90	
Sun-Cured Alfalfa Meal	2.90	

OYSTER SHELLS - GRITS

	25#	80#
Oyster Shells	\$.50	\$ 1.30
Calcium Fine	.50	1.35
Quartz Grit	.45	1.20
Calcium Grit	.45	1.20

BRAN & SHORTS

	100#
Middlings or Shorts	\$ 2.95
Bran & Shorts mixed	2.85
Bran	2.75

MISCELLANEOUS

	100#
Tankage	\$ 5.75
Sulphur Flour	4.30
Tobacco Dust	4.50
Bone Meal	5.70

HAY

	Ton	100#
Alfalfa Hay		
Prairie Hay		
Straw		

Ask for prices

ALL PRICES SUBJECT TO MARKET CHANGES WITHOUT NOTICE!

LOVELIER ROSES



(TRADEMARK)

Before setting out rose bushes, soak bare-rooted plants in Rosetone solution. Also water established plants with Rosetone. Plants take hold quickly and bear finer, earlier roses. Indispensable for the rose enthusiast.

½-ounce package, 25c
3-ounce can, \$1

NO-SEED HORMONE

Blossom-Set for Tomatoes



MORE EARLIER SEEDLESS LARGER... MEATIER... TASTIER

Also effective on Peppers, Cucumbers, Egg Plant Squash

JUST SPRAY THE BLOSSOMS
Keeps blossoms from falling... produces ripe tomatoes weeks earlier... greater yield... better tasting... **SEEDLESS**. Increases yield on beans, berries, too. **TESTED and PROVED** by Universities and Experiment Stations. 2 Oz. (makes ½ gal.) 60c; 4 Oz., \$1.00; 1 pt., \$2.50; ½ gal., \$7.50.

DOBBINS Superbilt

Sprayers and Dusters

BIGHEAD SPRAYER



No. 44 G

Heavy galvanized steel tank, seams electric welded. BIGHEAD opening at top, making it an easy sprayer to fill and clean. Patented self-lubricating pressure seal valve plunger gives more air per stroke. Trigger-quick spray lock for continuous spraying. For all spray solutions, including DDT and weed control chemicals. Tank—7⅜"x22½", 4-gallon capacity. Pump—1¾"x16", seamless brass. 2' brass extension rod with adjustable nozzle. Sprays at any angle.

DELUXE GARDEN SPRAYER



No. 8

High quality, 2-gallon sprayer of exclusive design. Oval tank, comfortable aluminum handle. Light weight. Recommend for DDT solution, weed control chemicals, and all insecticides and disinfectants. Fun-L-Fill top. Galvanized steel. Self-lubricating pressure seal valve plunger. Patented cam lock. Tank: 10¼" long, 6¾" wide, 10 7/8" high. Pump: 1¾" diameter, 8½" long. Discharge Equipment: 3 feet of 3/8" high-pressure spray hose. Automatic shutoff. Trigger quick lock.

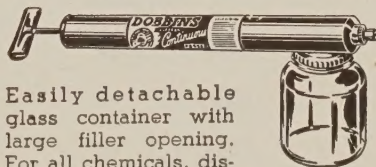
FUN-L-FILL SPRAYER



No. 21 G

Fun-L-Fill for convenience and economy in filling. The heavy galvanized steel tank is electrically welded at all seams, making a stronger leak-proof and pressure-proof unit. Patented self-lubricating pressure seal valve plunger—more air over stroke. Quick air release protects operator. Tank—7⅛"x21¼". 3½ gallon capacity. Pump—1¾"x14". 24" curved brass extension. Brass nozzle cap. Automatic shutoff with trigger-quick spray lock.

CONTINUOUS HAND SPRAYER



Easily detachable glass container with large filler opening. For all chemicals, disinfectants and insecticides free from sediment. Patented brass nozzle. Tank—Glass, 4" diameter, 4¼" high. Pump—1½" diameter, 14" long, heavy steel.



No. 132

The most efficient hand duster ever made. Highly recommended for applying Pyrethrum, Rotenone and Derris Root dust insecticides. A uniform discharge down to the last particle of dust. Tested and proved for all garden and field crops. Has 2 ft. extension, patented two-way cap for dusting top and underside of leaves. Pump: 4" diameter, 7½" stroke, with self-lubricating pressure seal valve plunger. Capacity 1 lb.

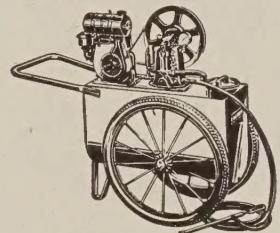
FLAME SPRAYER



No. 210

Kills weeds and grasses. Burns rubbish and brush. Disinfects poultry houses, and yards, rabbit hutches. Heats and thaws. Flame temperature 2,000° F. Average fuel consumption 1 gallon per hour. Heavy Galvanized 4-gallon steel tank with electric welded seams, tested for high pressure. Heavy steel welded torch. Brass burner with a needle-valve control.

POWER SPRAYER



No. 4240R

A portable, high-pressure, light-weight spray outfit capable of handling all spray jobs for the individual owner and grower. Tank capacity is 25 gallons. Equipped with 1½ GPM pump which develops 250 lbs. pressure. Only 18½" wide. 12½' of 3/8" high-pressure hose. Adjustable spray gun.

FLAT SPRAY NOZZLE CAP

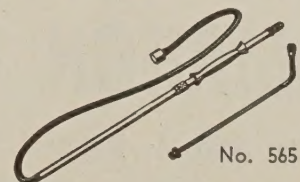


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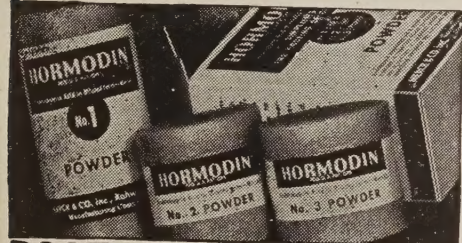
Interchanges with regular nozzle cap on all sprayers. Especially desirable for applying DDT solutions and weed control chemicals. Fine and coarse discs furnished.

SPRAY WAND—THE MAGIC SPRAYER

A sprayer amazingly easy to use. Has adjustable nozzle making it ideal for countless uses. Excellent for spraying plants, shrubs, trees, buildings; for applying disinfectants, white-wash, cold water paints; for washing windows, cars, boats; fine as emergency fire pump or bilge pump. Nozzle adjusts to a fine spray or to a solid stream 35-40 feet long.



No. 565

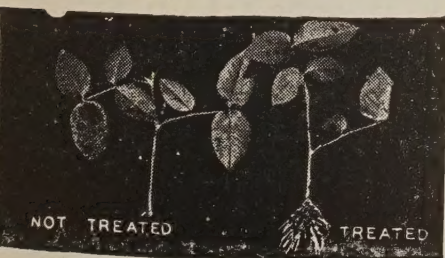


ROOT CUTTINGS WITH HORMODIN POWDER

Reg. U. S. Pat. Off.

This Hormone Powder produces better roots—faster! Simply dip moistened stems in Hormodin Powder and place in usual propagating medium. For house, garden, and greenhouse plants use Hormodin Powder No. 1; also available as Powder No. 2 for woody types and Powder No. 3 for evergreens.

Combination Package 75c



Everything You Need!



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Lay Chow

Layena

Calf Startena

Cow Chow

Hog Chow

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